Congestion Management System

Bridges and Tunnels
Roadway Congestion Analysis
Mitigation Strategies and Evaluation
Part 2

CMS

HAMPTON ROADS
PLANNING DISTRICT COMMISSION

APRIL 2005

T05-01

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CONGESTION MANAGEMENT SYSTEM

Bridges and Tunnels
Roadway Congestion Analysis
Mitigation Strategies and Evaluation

Part 2

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ABSTRACT

According to the Final Rules on Management and Monitoring Systems published in the Federal Register in December 19, 1996, the Congestion Management System (CMS) is required in all Transportation Management Areas (TMA), metropolitan areas over 200,000 in population. The CMS program is an on-going process that identifies, develops, evaluates, and implements transportation strategies to reduce traffic congestion and enhance safety and mobility regionwide. The Hampton Roads Planning District Commission (HRPDC) began developing a Congestion Management System for the region in the early 1990s, and released the region's first CMS report in 1995. Other previous updates to the CMS were released in 1997 and 2001.

This report is the second part of an update to the Congestion Management System for Hampton Roads, which includes an analysis of the traffic trends at the major regional bridges and tunnels as well as a comprehensive congestion analysis of the region's roadway system for 2003, 2008, and 2026 peak hours. An in-depth analysis is provided for roadway facilities that are currently operating at severe conditions (PM peak hour) and are expected to remain congested through 2026 with no current planned improvements in place. For these congested locations, the probable causes of today's congestion as well as CMS mitigation strategies and recommendations are provided.

ACKNOWLEDGMENTS

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INTRODUCTION

This report is the second part of an update to the Congestion Management System (CMS) for Hampton Roads, which includes a historical traffic trend analysis of major regional bridges and tunnels as well as a comprehensive congestion analysis of the region's roadway system. Roadway facilities that operate at unacceptable levels of service for existing or future conditions are identified in order to determine applicable congestion mitigation strategies.

The CMS program is an on-going process that identifies, develops, evaluates, and implements transportation strategies to reduce traffic congestion and enhance safety and mobility regionwide. Federal regulations require that a Congestion Management System be in place in all metropolitan areas with populations over 200,000 people. The Hampton Roads Planning District Commission (HRPDC) began developing a Congestion Management System for the region in the early 1990s, and released the region's first CMS report in 1995. Other previous updates to the CMS were released in 1997 and 2001. The last CMS update, released in 2001, included a level of service (LOS) analysis for the 2000 roadway network.

The first part of this CMS update examined the state of transportation in the region by highlighting current transportation data, analyzing historical trends, and comparing the region with similar metropolitan areas. This second part provides a thorough assessment of the roadway system in Hampton Roads. It identifies the most congested corridors and investigates probable causes of congestion for those roadway facilities with unacceptable traffic conditions. Based on the findings, recommendations regarding congestion management strategies are made for those roadway facilities.

CMS Study Area

The Hampton Roads Metropolitan Planning Organization (MPO) Study Area (see map above) is located in Southeastern Virginia, adjacent to the Atlantic Ocean and Chesapeake Bay. The study area is divided by the James River and the Hampton Roads harbor into two subregions: the Peninsula and the Southside. The Peninsula is the northern subregion, comprised of the cities of

Hampton Roads MPO Boundary

Hampton, Newport News, Poquoson, and Williamsburg, and the counties of James City and York, as well as a portion of Gloucester County. The Southside includes the cities of Chesapeake, Norfolk, Portsmouth, Suffolk, and Virginia Beach, as well as Isle of Wight County and the towns of Windsor and Smithfield.

Hampton Roads is a region named after the body of water that provides both the greatest benefit and hindrance to its transportation system. Hampton Roads' location and topography requires more bridges and tunnels for its roadway system, which involves higher costs than usual for construction and maintenance. In addition, the region is comprised of three state-operated port facilities, two international airports, two Amtrak stations, multiple rail lines, shipyards, and military facilities. Providing links to these facilities are a system of highways, bridges and tunnels, bike and pedestrian facilities, and multiple transit modes and authorities.

What's New in this CMS Update?

- *Expanded Roadway Network* – The current CMS network includes all roadways in the Virginia Department of Transportation (VDOT) Thoroughfare System, which is used for long range planning purposes. Most of the roadway additions were in Isle of Wight County,

which is now entirely part of the Hampton Roads MPO boundary. The current CMS roadway network includes 4,665 lane-miles, up from 4,169 lane-miles in 2000.

- *Improved Data* – VDOT now has a comprehensive traffic count program with peak hour factors, which enhances the accuracy of the congestion analysis. In prior updates, estimates had to be made for facilities without data.
- *Updated LOS Software* – The latest LOS software is based upon the methodologies described in the 2000 Highway Capacity Manual (HCM). In the 2001 CMS update, most of the LOS analyses were determined using software based on the 1997 HCM.
- *Improved Capability in LOS Software* – The latest LOS software allows levels of service to be determined for each direction for all Interstate and Freeway/Expressway (free-flow) facilities; prior versions (also the last CMS update) only provided a LOS for both directions combined.

Report Contents

This report is organized into six sections:

1. *Introduction*
2. *Bridges and Tunnels* – provides an in-depth analysis of travel speed and traffic trends at the regional bridge and tunnel facilities.
3. *CMS Roadway Network* – details the existing CMS roadway network as well as the future year networks (2008 and 2026, based on roadway improvements included in the *Hampton Roads Transportation Improvement Program*[1] – *FY 05-08* and the *Hampton Roads 2026 Regional Transportation Plan*[2]).
4. *Hampton Roads Congestion Analysis* – provides level of service results for AM and PM peak travel conditions for the CMS roadway network during 2003 Existing, 2008, and 2026 years.
5. *CMS Mitigation Strategies and Evaluation* – determines probable causes for severely congested roadways and provides congestion mitigation strategies to improve levels of service.
6. *Next Steps*

Maintaining and improving the transportation infrastructure is crucial in order to move people and goods safely and efficiently throughout Hampton Roads.

[1] Hampton Roads Planning District Commission, "Hampton Roads Transportation Improvement Program – TIP FY 2005-2008", July 2004.

[2] Hampton Roads Planning District Commission, "Hampton Roads 2026 Regional Transportation Plan", June 2004.

BRIDGES AND TUNNELS

With water playing such a prominent role in the geography of Hampton Roads, bridges and tunnels are a vital part of the regional roadway network. Often they are also the sites of the region's largest bottlenecks. This section analyzes traffic conditions at eight major bridges and tunnels throughout the region. The location of these facilities is shown on **Map 1** on page 4, and a brief description of each facility follows.

Coleman Bridge

The Coleman Bridge connects the Peninsula in York County with the Middle Peninsula in Gloucester County. The original Coleman Bridge opened to traffic in 1952. In 1996, the Coleman Bridge was widened to 4-lanes (with 12-foot shoulders that can be designated as through lanes in the future) with a double swing-span style of drawbridge, the second-largest such bridge in the world. A $2.00 toll was implemented for northbound traffic to fund the project, although frequent users can cross the bridge for $0.50 with a Smart Tag electronic toll collection transponder.

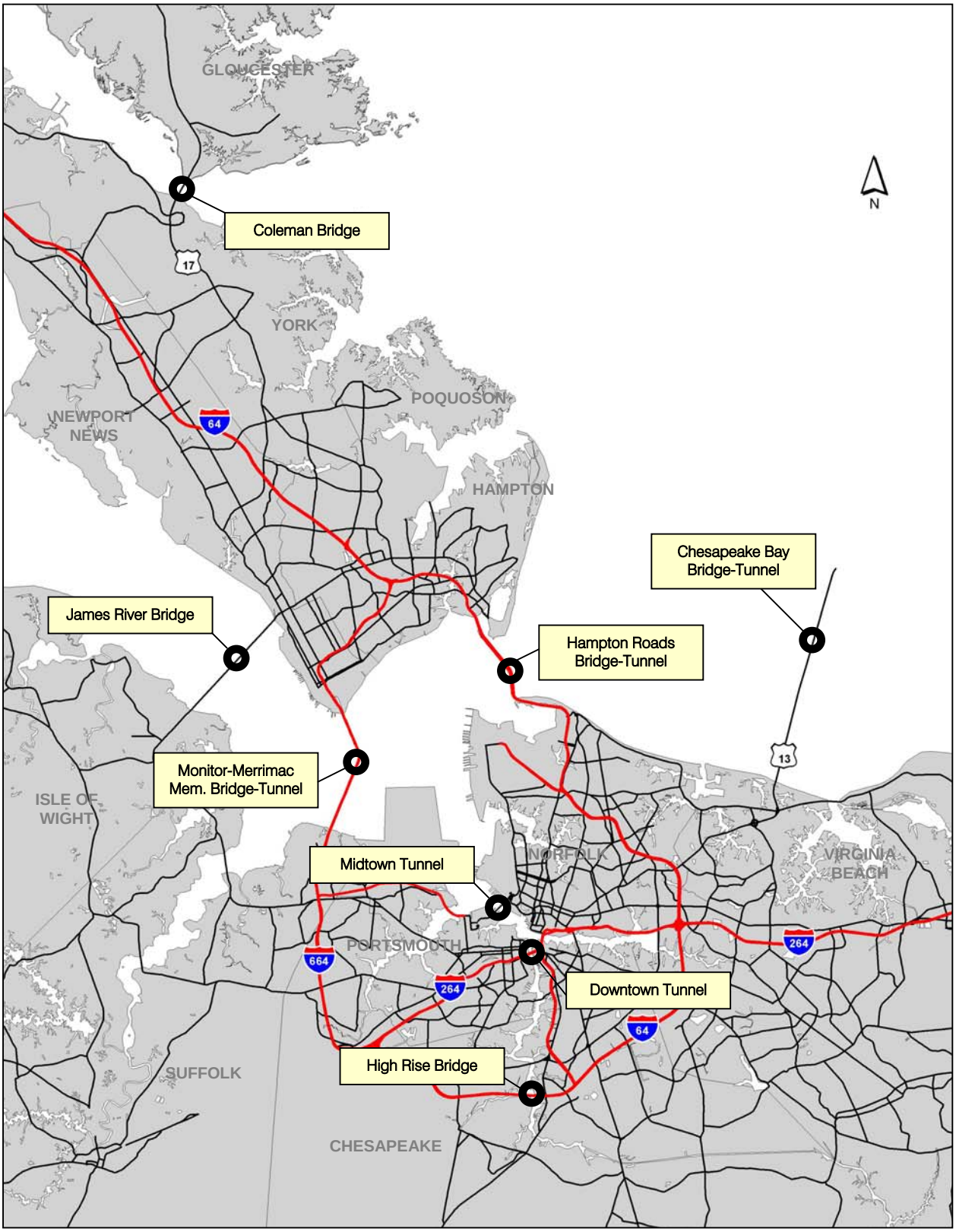
James River Bridge

The original Hampton Roads crossing, the James River Bridge connects Newport News with Isle of Wight County. The original James River Bridge was opened to traffic as a toll facility in 1928. In 1975, the tolls were removed. In 1982, the aging 2-lane facility was replaced with a new 4-lane drawbridge facility.

Chesapeake Bay Bridge-Tunnel

The Chesapeake Bay Bridge-Tunnel connects Virginia Beach with the Eastern Shore of Virginia, providing for a shorter route between Hampton Roads and the Northeastern United States. The facility charges a $12.00 toll in each direction for passenger cars, although a roundtrip made within 24 hours is discounted to $17.00. The 18-mile facility was opened to traffic in 1964, and was designated as one of the Seven Engineering Wonders of the Modern World. In 1999, parallel spans were opened to traffic, with parallel tunnel facilities planned for the future.

Map 1 – Major Regional Bridges and Tunnels



Map Source: VDOT.

Monitor-Merrimac Memorial Bridge-Tunnel

The newest facility crossing the Hampton Roads harbor, the Monitor-Merrimac Memorial Bridge-Tunnel connects Newport News and Suffolk via I-664. The 4-lane facility, opened to traffic in 1992, is 4.6 miles in length.

Hampton Roads Bridge-Tunnel

The most notorious of the Hampton Roads harbor crossings, the 3.8-mile long Hampton Roads Bridge-Tunnel connects Norfolk with Hampton via I-64. The Hampton Roads Bridge-Tunnel was opened as a tolled two-lane facility in 1957, replacing ferry service between the Southside and the Peninsula. In 1976, a parallel two-lane tube was opened to traffic and tolls were removed. In 1999, the facility was rehabilitated and shoulders were added on the bridges.

Midtown Tunnel

The Midtown Tunnel is a 2-lane facility that crosses underneath the Elizabeth River between Norfolk and Portsmouth, adjacent to the Portsmouth Marine Terminal. The facility was opened to traffic as a toll facility in 1962. Few major changes have been made to the facility since then, although tolls were removed from the facility in 1986. Between September 18th and October 15th, 2003, the Midtown Tunnel was closed due to flooding that resulted from Hurricane Isabel. With the imminent completion of the Pinner's Point project, a direct link will be provided between the Western Freeway and the Midtown Tunnel.

Downtown Tunnel

The Downtown Tunnel traverses the Southern Branch of the Elizabeth River, connecting Norfolk and Portsmouth via I-264. The original 2-lane toll facility opened to traffic in 1952. Tolls were removed at the Downtown Tunnel, as well as the Midtown Tunnel, in 1986. In 1987 the parallel tube was constructed, and the adjacent Berkley Bridge was rebuilt and widened in 1991.

High Rise Bridge

The G.A. Treakle Bridge (commonly referred to as the High Rise Bridge) spans I-64 across the Southern Branch of the Elizabeth River in Chesapeake. The 4-lane facility was opened to traffic in 1969. Although the bridge is 65-feet high, the facility includes a drawbridge that can be opened for river traffic.

Traffic Volumes and Characteristics at Regional Bridges and Tunnels

This section details traffic characteristics at the eight bridges and tunnels that were described in the previous section. Included in this section is an analysis of average daily traffic volumes, seasonal traffic variations, traffic volumes by day of week, hourly traffic volumes, and peak hour travel times and speeds at the regional bridges and tunnels.

Some of the following sections do not include an analysis of the High Rise Bridge. This is due to a lack of detailed traffic count data on a daily basis for the High Rise Bridge. Although Phase II of the Hampton Roads Traffic Management Center provided traffic monitoring equipment in the vicinity of the High Rise Bridge in mid-2004, this data was not able to be used in this analysis.

Average Daily Traffic

Figure 2 on page 8 provides Annual Average Daily Traffic (AADT) volumes at the eight major regional bridges and tunnels from 1990 to 2003. Average annual growth rates in traffic volumes at these facilities are also included in Figure 2.

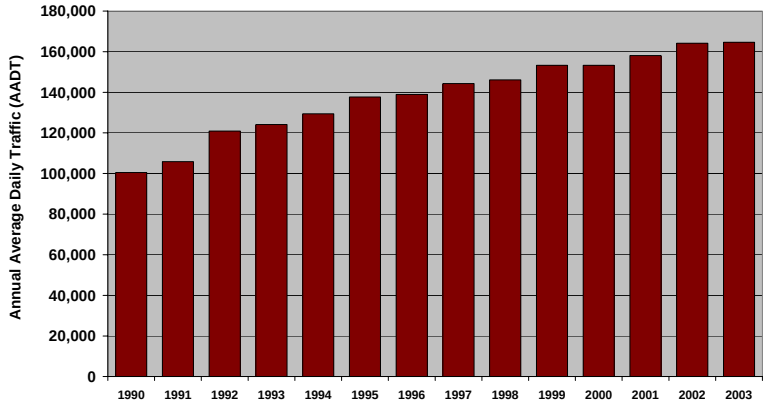
The Downtown Tunnel, with over 95,000 vehicles per day in 2003, carried the most traffic of the analyzed bridges and tunnels. The second busiest facility, the Hampton Roads Bridge-Tunnel, carried 6,500 fewer vehicles per day in 2003 than the Downtown Tunnel.

The growth in traffic volumes at the regional bridges and tunnels has been substantial. The Monitor-Merrimac Memorial Bridge-Tunnel had the highest growth, with an average annual growth rate of 6.8% since it's opening. The High Rise Bridge also experienced significant growth, with an average annual growth rate of 3.8% between 1990 and 2003.

Traffic volumes at all eight analyzed bridges and tunnels combined grew 48% between 1990 and 2003. By comparison, the number of vehicle-miles of travel on all roadways throughout Hampton Roads grew 18% during the same time period.

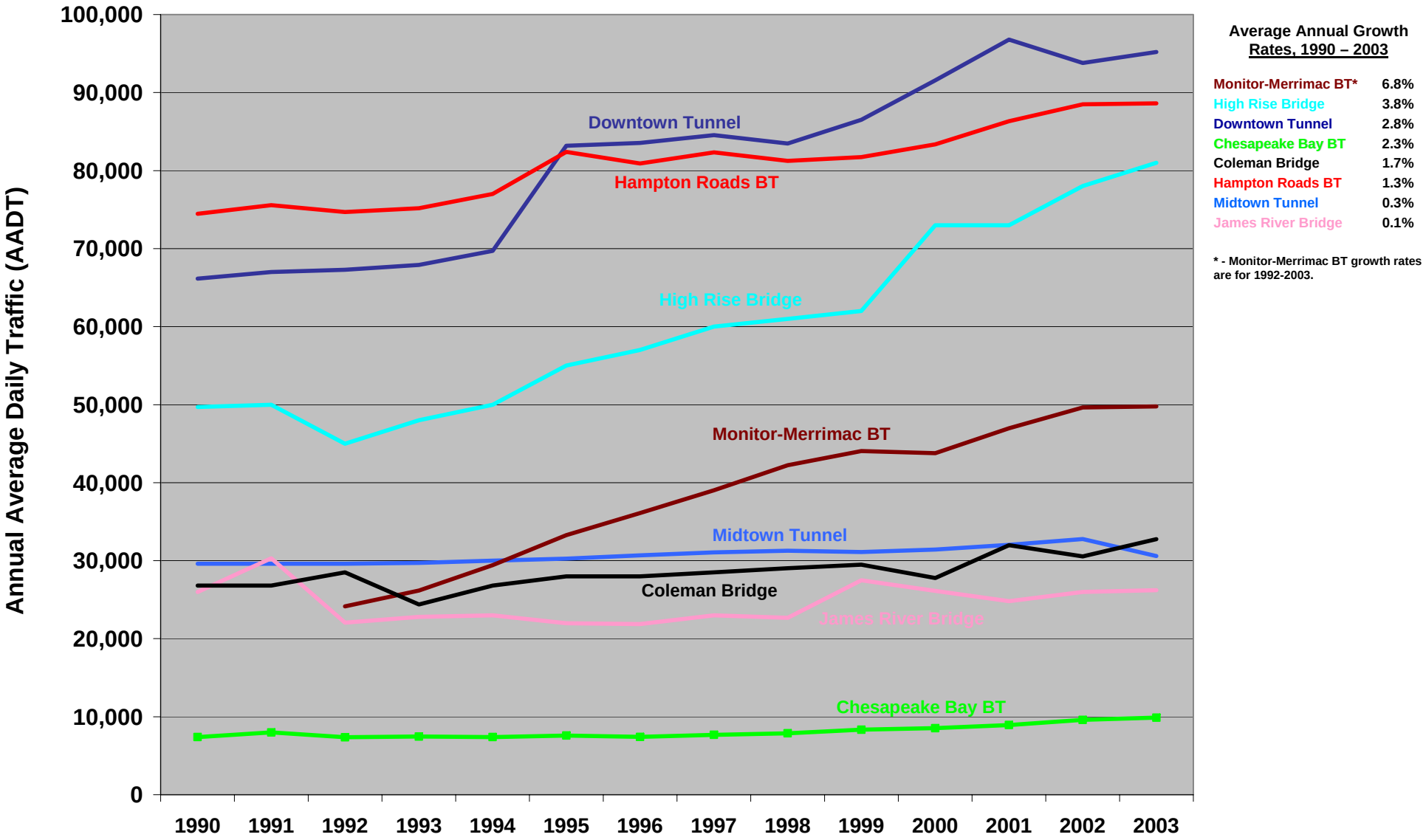
Looking only at the Hampton Roads harbor crossings (which includes the Hampton Roads Bridge-Tunnel, the Monitor-Merrimac Memorial Bridge-Tunnel, and the James River Bridge), traffic volumes increased 64% between 1990 – 2003 (**Figure 1**), up to 165,000 vehicles per day in 2003. A major reason for this growth is the increase in commuting between the Southside and the Peninsula. 15,000 more commuters crossed the Hampton Roads harbor daily in 2000 than in 1990, a 54% increase. Most of this growth in cross-harbor traffic was absorbed by the Monitor-Merrimac Memorial Bridge-Tunnel, which opened in 1992.

Figure 1 – Annual Average Daily Traffic Crossing the Hampton Roads Harbor, 1990 - 2003



Data Sources: HRPDC Economic Outlook, VDOT.

Figure 2 – Annual Average Daily Traffic and Growth Rates at Regional Bridges and Tunnels



Data Sources: HRPDC Economic Outlook, CBBT, VDOT. Some data is VDOT estimates. Downtown and Midtown Tunnel data excludes Sept. and Oct. 2003 due to Midtown Tunnel closure. James River Bridge data excludes 9/15/03 – 10/3/03 due to equipment failure.

Seasonal Traffic

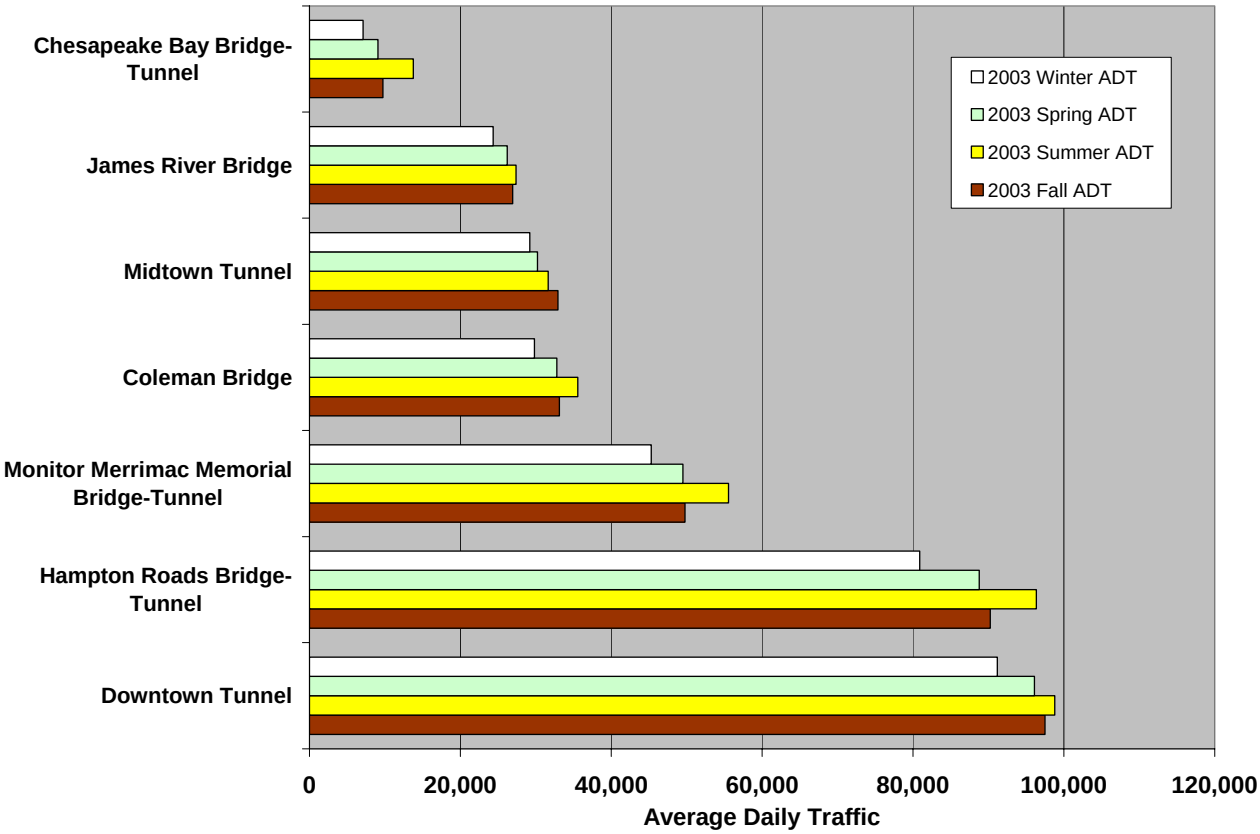
With summer tourism being such an important component of the Hampton Roads economy, traffic volumes throughout the region vary greatly depending on the time of the year. **Figure 3** shows the seasonal variation in traffic volumes at the region's bridges and tunnels in 2003, and **Table 1** shows the amount of variation in traffic between winter and summer at these facilities. The Chesapeake Bay Bridge-Tunnel, which carries little commuting traffic, experienced the greatest variation between summer and winter traffic volumes, with nearly twice as much traffic using the facility during the summer than during the winter. The Elizabeth River Tunnels (the Downtown Tunnel and the Midtown Tunnel), due to their heavy use by commuters, had the least seasonal fluctuation in their traffic volumes.

Table 1 – Variation in Daily Traffic Volumes - Winter to Summer

Facility	Variation in Daily Traffic Volumes Winter to Summer
Coleman Bridge	19.2%
James River Bridge	12.4%
Chesapeake Bay Bridge-Tunnel	93.8%
Monitor Merrimac Memorial Bridge-Tunnel	22.6%
Hampton Roads Bridge-Tunnel	19.1%
Midtown Tunnel	8.3%
Downtown Tunnel	8.3%

Data Sources: CBBT, VDOT.

Figure 3 – Seasonal Average Daily Traffic at Regional Bridges and Tunnels, 2003



Data Sources: CBBT, VDOT.

Winter includes January-February and December. Spring includes March-May. Summer includes June-August. Fall includes September-November.
All facilities exclude data from 9/18/03 – 9/21/03 due to Hurricane Isabel. James River Bridge data excludes 9/16/03 – 10/3/03 due to equipment failure.
Midtown Tunnel data does not include September or October counts due to the effects of Hurricane Isabel.

Traffic by Day of Week

Figure 4 shows the variation in traffic volumes at the region's bridges and tunnels by day of week in 2003, and **Table 2** shows the amount of variation in traffic at these facilities from weekdays to weekends. Not surprisingly, Friday was the busiest day of the week at most of the area's bridges and tunnels. One exception, the Chesapeake Bay Bridge-Tunnel, experienced higher traffic volumes on weekends, due to its high percentage of tourist traffic.

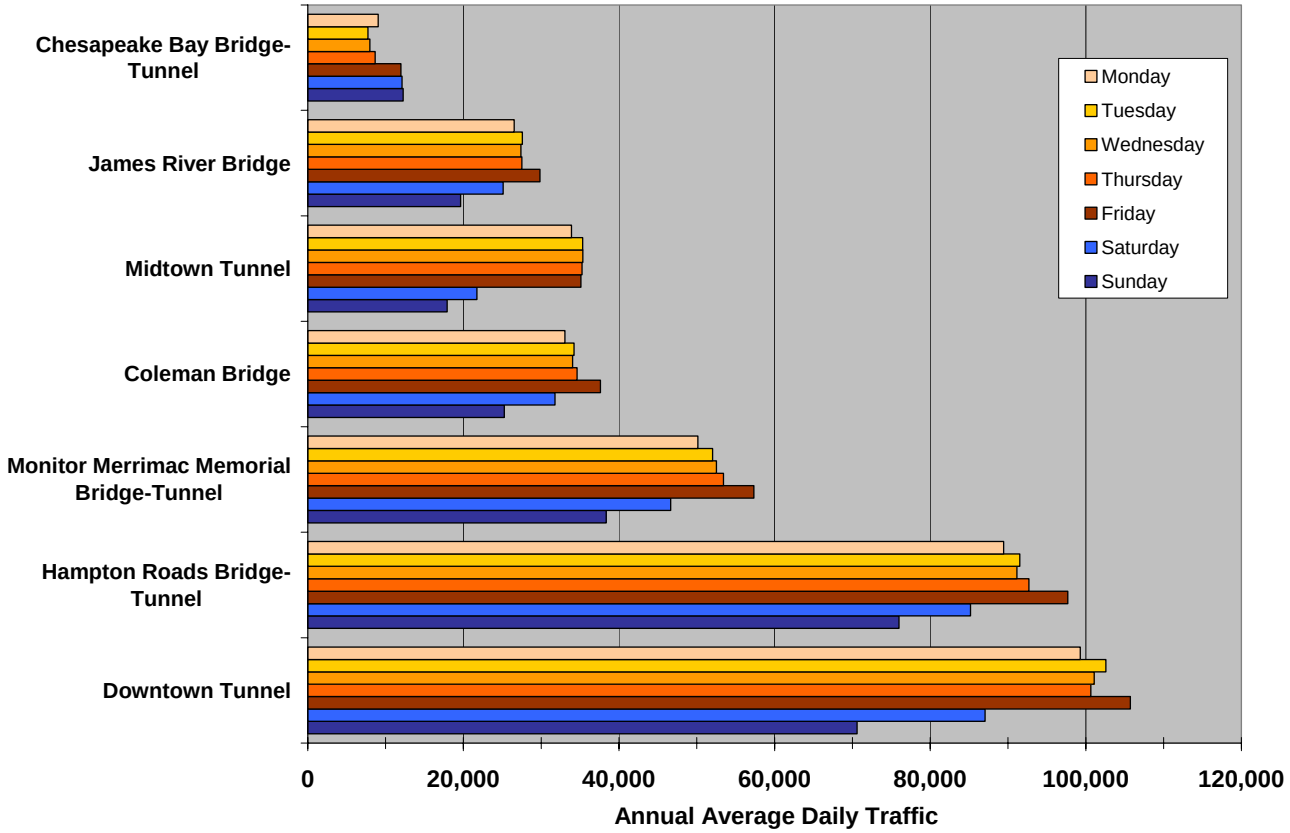
The Elizabeth River Tunnels experienced the largest decreases in traffic between weekdays and weekends due to the high percentage of commuter traffic at these facilities. However, at both the Downtown Tunnel and Hampton Roads Bridge-Tunnel, average Saturday volumes were above 85,000 vehicles, which exceeds the daily design capacity of each facility. This indicates that congestion, even without incidents, may soon be a six or seven day a week problem at these tunnels.

Table 2 – Variation in Daily Traffic Volumes from Weekdays to Weekends

Facility	Variation in Daily Traffic Volumes Weekdays vs. Weekends
Coleman Bridge	-17.9%
James River Bridge	-19.5%
Chesapeake Bay Bridge-Tunnel	34.4%
Monitor Merrimac Memorial Bridge-Tunnel	-20.0%
Hampton Roads Bridge-Tunnel	-12.9%
Midtown Tunnel	-43.4%
Downtown Tunnel	-22.6%

Data Sources: CBBT, VDOT.

Figure 4 – Average Daily Traffic by Day of Week at Regional Bridges and Tunnels, 2003



Data Sources: CBBT, VDOT.

All facilities exclude data from 9/18/03 – 9/21/03 due to Hurricane Isabel. James River Bridge data excludes 9/16/03 – 10/3/03 due to equipment failure. Midtown Tunnel and Downtown Tunnel data does not include September or October counts due to the effects of Hurricane Isabel.

Traffic by Time of Day

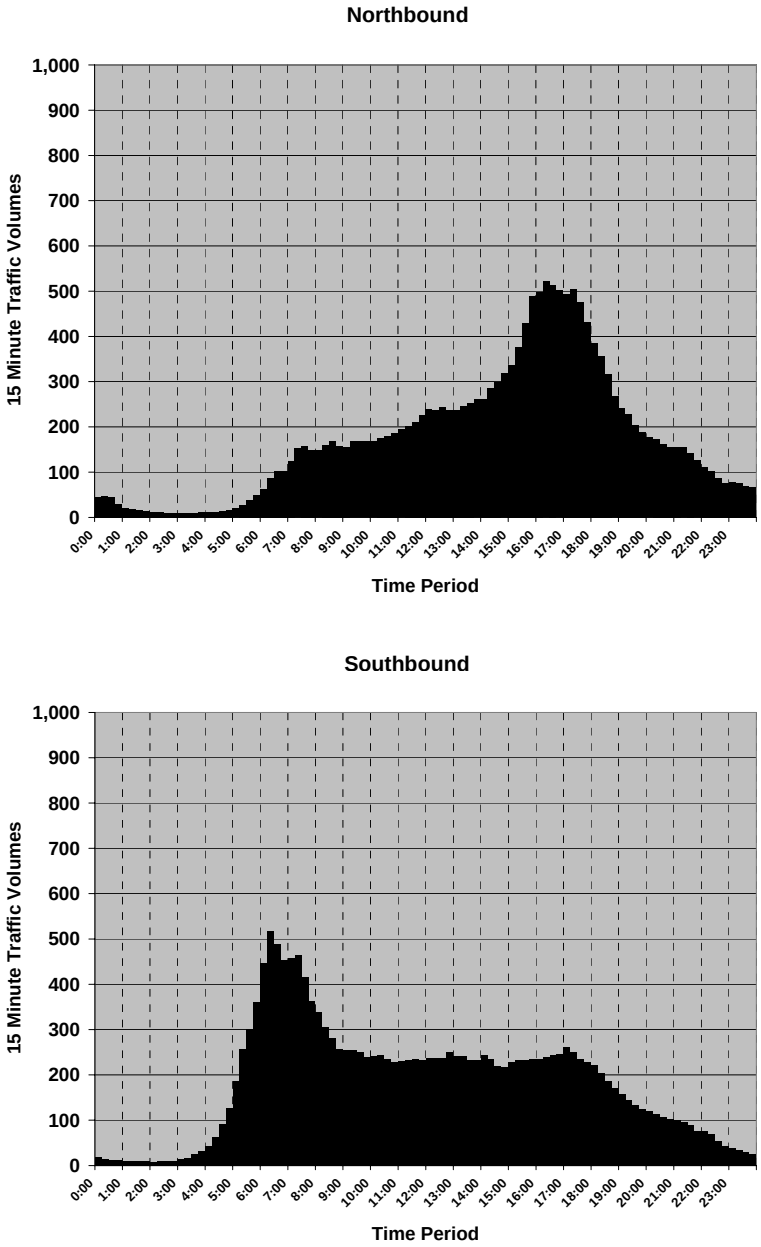
This section includes figures and details concerning 15-minute traffic volumes by direction for each of the eight analyzed bridges and tunnels.

Coleman Bridge

The Coleman Bridge is used mostly by commuters heading from Gloucester County south to the Peninsula in the morning and vice-versa in the afternoon. Not surprisingly, most of the traffic in the morning on the Coleman Bridge is traveling southbound, and in the afternoon is traveling northbound. 34% of all southbound traffic uses the facility during the morning peak period between 5 am and 9 am, while 40% of all northbound traffic uses the facility during the afternoon peak period between 3 pm and 7 pm.

The bridge does not reach capacity in either direction during either peak travel period. However, the capacity of the facility is affected in the northbound direction by toll booths on the Gloucester County side of the bridge. This reduction is not significant, however, since an amazing 90% of all peak period travelers at the Coleman Bridge pay tolls via Smart Tag electronic toll collection.

Figure 5 – 15-minute Traffic Volumes at the Coleman Bridge, 2003



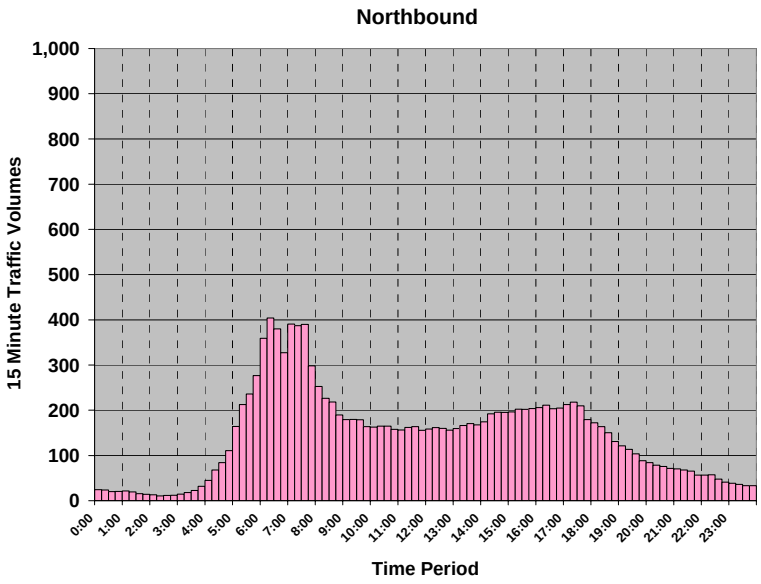
Data Source: VDOT. Data was collected all Tuesdays, Wednesdays, and Thursdays in 2003.

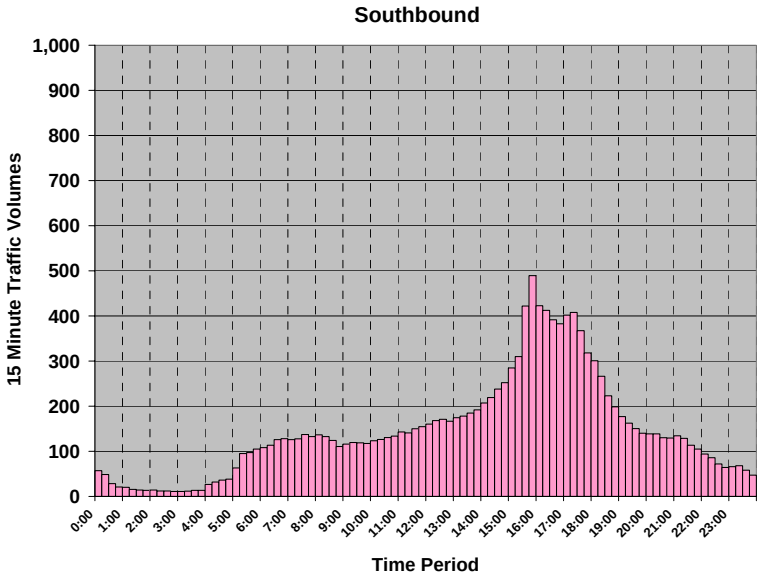
James River Bridge

Similar to the Coleman Bridge, the James River Bridge is mostly used by commuters heading towards the Peninsula in the morning and vice-versa in the afternoon. The James River Bridge, however, does not carry as much traffic as the Coleman Bridge, since the Monitor-Merrimac Memorial Bridge-Tunnel provides an adjacent alternate route.

Although 37% of the northbound traffic uses the facility during the morning peak period and 40% of the southbound traffic uses the facility during the afternoon peak period, the James River Bridge does not operate near capacity.

Figure 6 – 15-minute Traffic Volumes at the James River Bridge, 2003



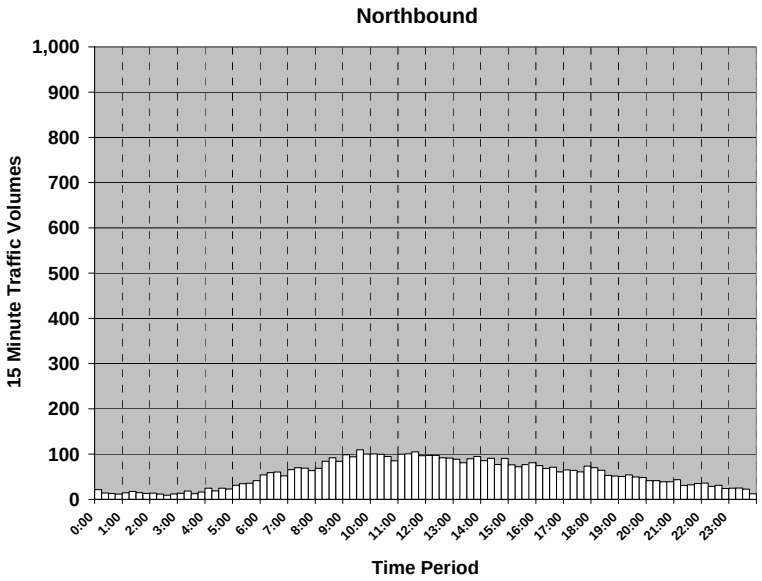


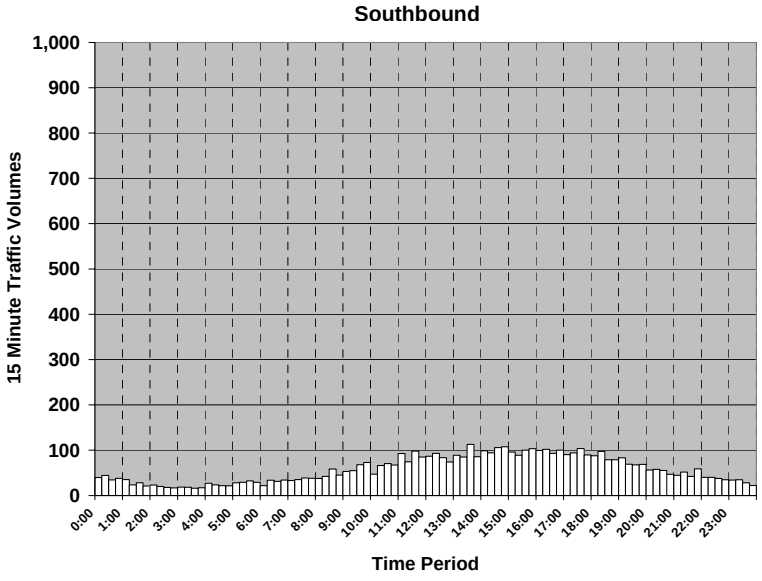
Data Source: VDOT. Data was collected all Tuesdays, Wednesdays, and Thursdays in 2003.

Chesapeake Bay Bridge-Tunnel

With a total length of 18 miles and significant tolls in each direction, the Chesapeake Bay Bridge-Tunnel is not a popular commuter route. On weekdays, which contain much lower traffic volumes than the weekend, there's not a perceptible peak period at any time of the day in either direction. The highest traffic volumes in the northbound direction occur in the late morning and early afternoon hours, while in the southbound direction the highest volumes occur in the late afternoon and early evening.

Figure 7 – 15-minute Traffic Volumes at the Chesapeake Bay Bridge-Tunnel, 2003





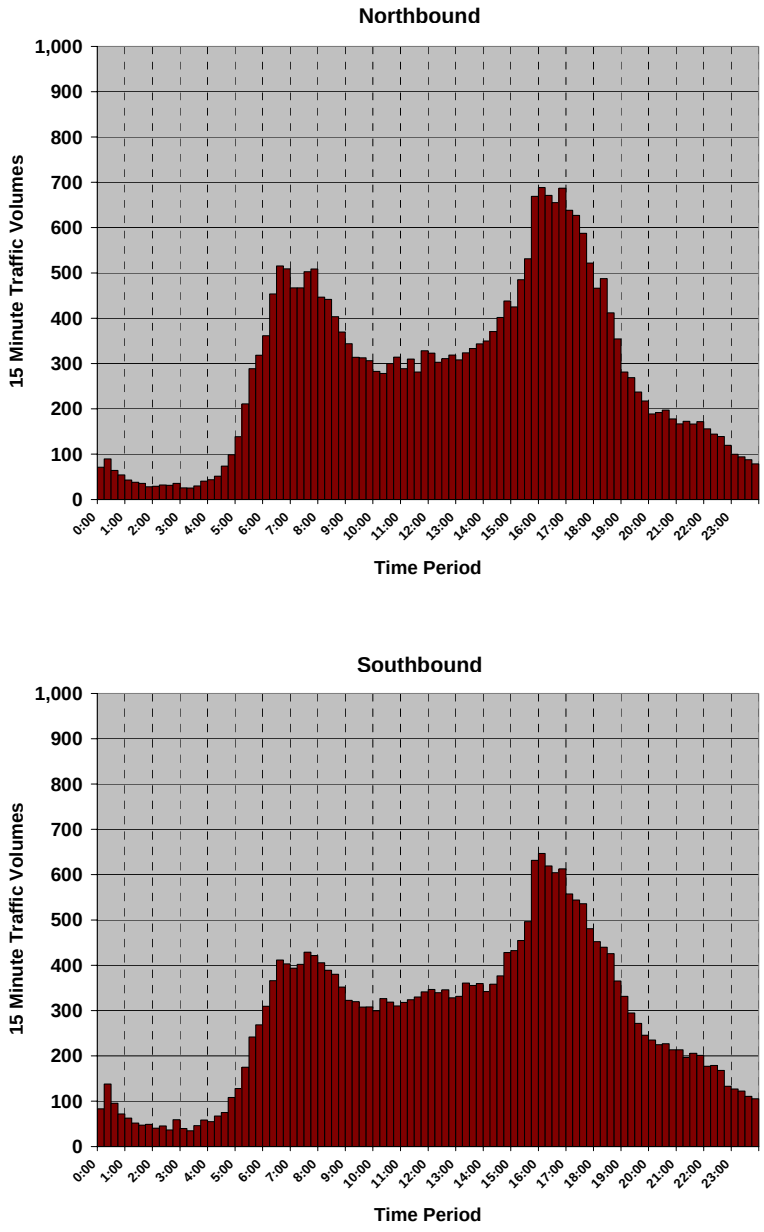
Data Source: VDOT. Data was collected 6/30-03 – 7/1/03 and 8/25/03 - 8/26/03.

Monitor-Merrimac Mem. Bridge-Tunnel

The traffic patterns at the Monitor-Merrimac Memorial Bridge-Tunnel are unusual in that the traffic patterns in each direction are very similar. Both directions are more heavily used in the afternoon peak period than in the morning, and peak travel times and volumes are comparable.

The Monitor-Merrimac Memorial Bridge-Tunnel is usually not congested unless there is an incident or a significant amount of traffic diversion from the Hampton Roads Bridge-Tunnel. However, flow rates are approaching levels near 1,400 vehicles per hour per lane during the afternoon peak period. With other tunnel facilities only able to handle 1,600 to 1,800 vehicles per lane per hour and the continued growth in traffic, congestion at the Monitor-Merrimac Memorial Bridge-Tunnel is expected to be prevalent in the near future.

Figure 8 – 15-minute Traffic Volumes at the Monitor-Merrimac Memorial Bridge-Tunnel, 2003



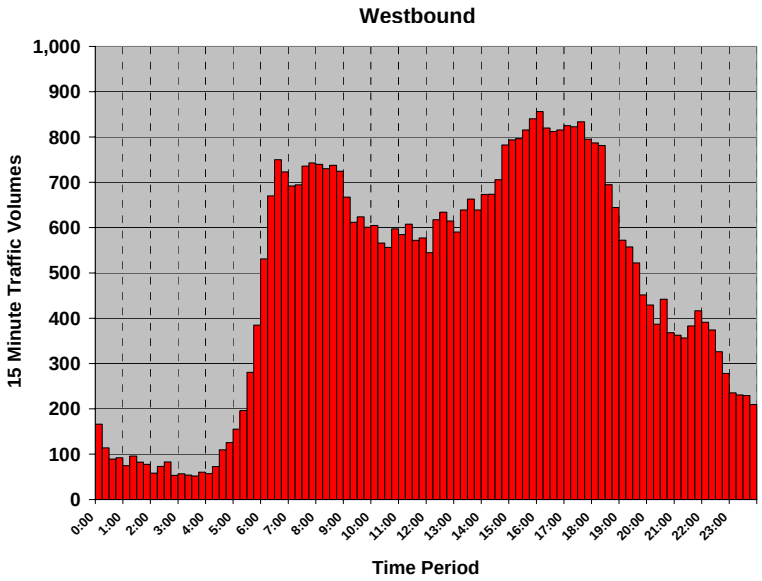
Data Source: VDOT. Data was collected the week of 10/20-03 – 10/24/03. Data does not include the highest and lowest volumes from the week for each time period to account for incidents.

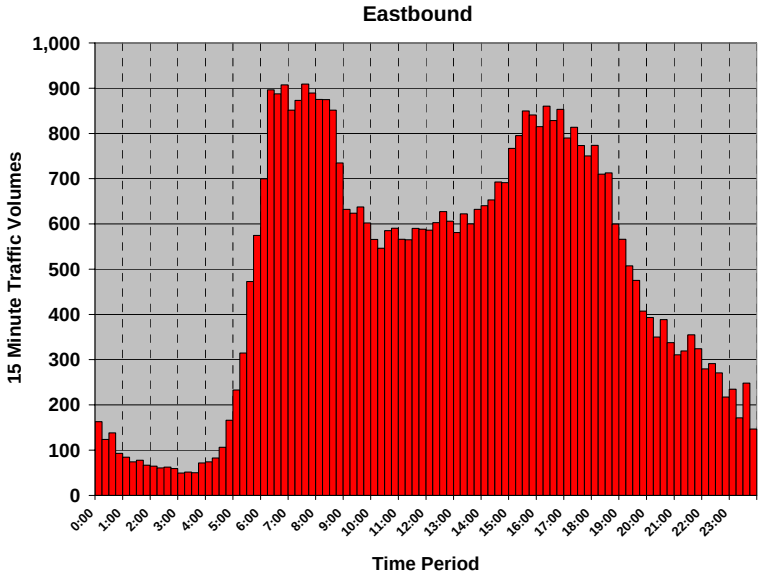
Hampton Roads Bridge-Tunnel

At the Hampton Roads Bridge-Tunnel, the peak periods are much longer in length than at the Monitor-Merrimac Memorial Bridge-Tunnel. The morning and afternoon peak periods are three to as much as four hours long, with volumes reaching the tunnel's capacity of between 1,600 and 1,800 vehicles per lane per hour.

The midday volumes at the Hampton Roads Bridge-Tunnel are also significant, with only about a 25% drop in traffic volumes from the peak periods in each direction.

Figure 9 – 15-minute Traffic Volumes at the Hampton Roads Bridge-Tunnel, 2003





Data Source: VDOT. Data was collected the week of 10/20-03 – 10/24/03. Data does not include the highest and lowest volumes from the week for each time period to account for incidents.

Midtown Tunnel

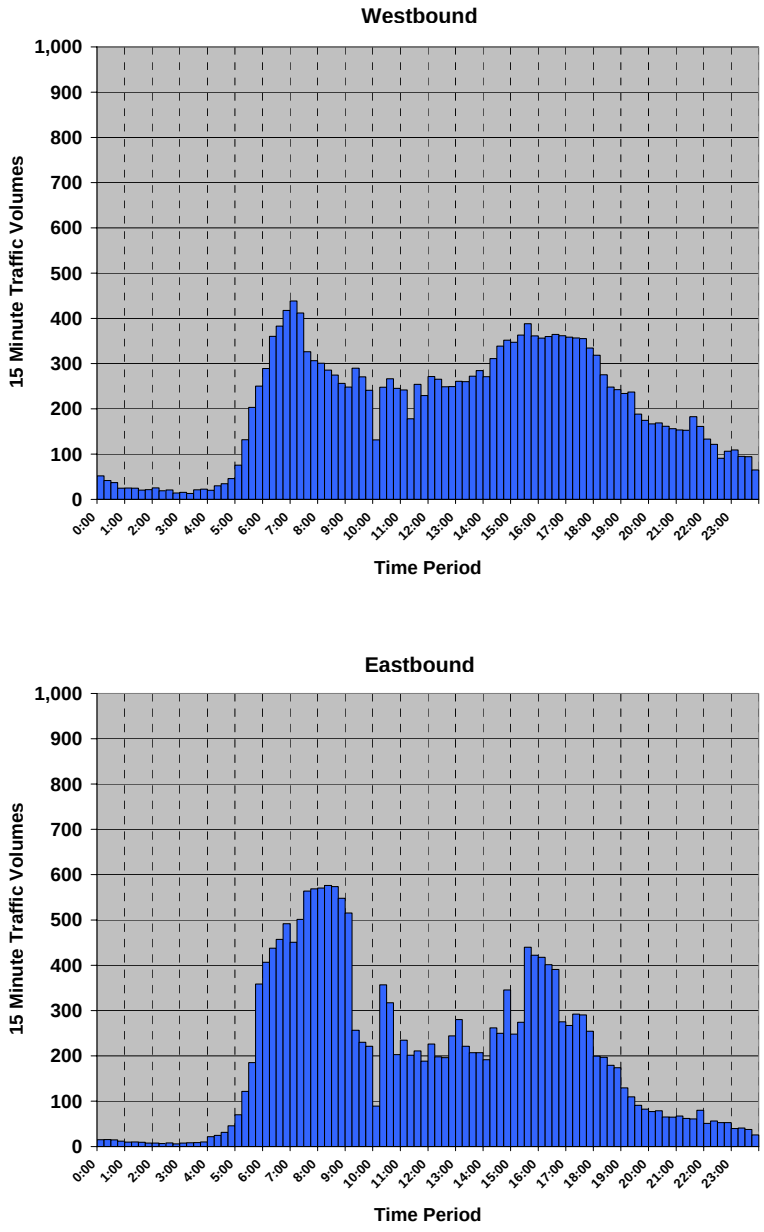
As the only tunnel with two-way traffic patterns in Hampton Roads, it would be expected that the capacity of the tunnel would be affected by the adjacent oncoming traffic. However, the data indicates that this is not the case.

In the westbound direction, the flow rate of the tunnel approaches 1,600 vehicles per hour, although traffic volumes per 15-minute period are higher in the morning than during the afternoon. In the eastbound direction, the flow rate appears to be much higher, at over 2,200 vehicles per hour. This number is higher than is found per lane at both the Downtown Tunnel and Hampton Roads Bridge-Tunnel.

These varying amounts of traffic that the Midtown Tunnel can handle may be due to the convergence of ramps approaching the tunnel on the Norfolk side in the westbound direction, with ramps diverging in the eastbound direction. On the Portsmouth side, the nearest ramp to the tunnel is over half of a mile away.

It should be noted that this data was collected prior to the construction of the Pinners Point interchange. 15-minute volumes over the last two years may have been affected by the construction and associated traffic pattern changes.

Figure 10 – 15-minute Traffic Volumes at the Midtown Tunnel, 2000



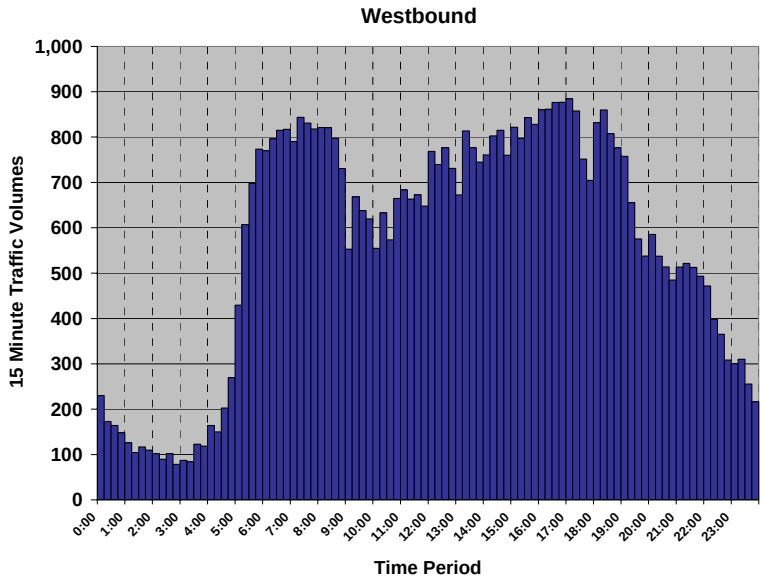
Data Source: VDOT. Data was collected 10/11/00 – 10/12/00.

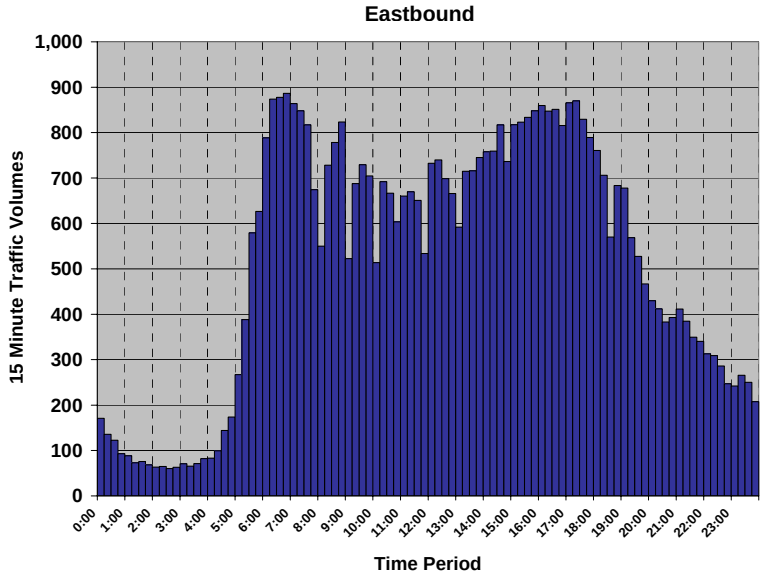
Downtown Tunnel

The highest flow rates at the Downtown Tunnel are between 1,600 and 1,800 vehicles per lane per hour, similar to the flow rates recorded at the Hampton Roads Bridge-Tunnel. The peak period durations at the Downtown Tunnel are also similar to those at the Hampton Roads Bridge-Tunnel.

However, the midday volumes at the Downtown Tunnel are higher than the Hampton Roads Bridge-Tunnel. Traffic volumes at the Downtown Tunnel during the noon hour are approximately 85% of the volumes seen during the peak periods, and volumes gradually rise in the early afternoon hours in both directions until reaching the facility's capacity.

Figure 11 – 15-minute Traffic Volumes at the Downtown Tunnel, 2003





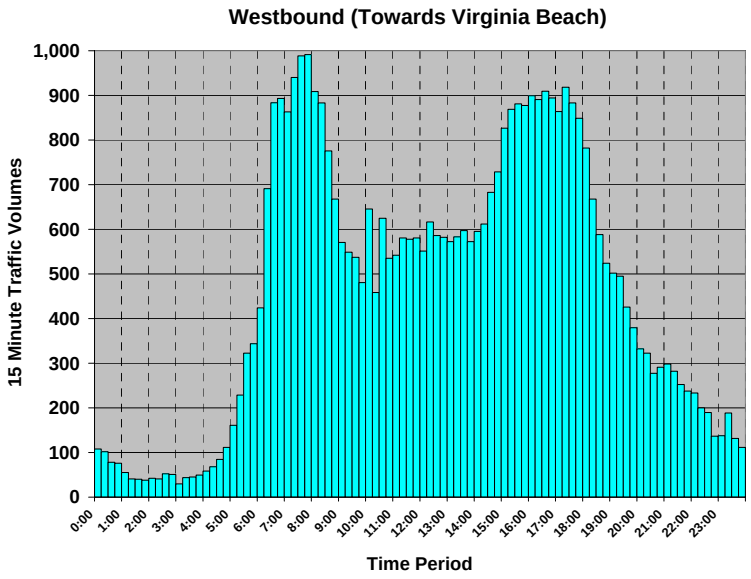
Data Source: VDOT. Data was collected the week of 10/20-03 – 10/24/03. Data does not include the highest and lowest volumes from the week for each time period to account for incidents.

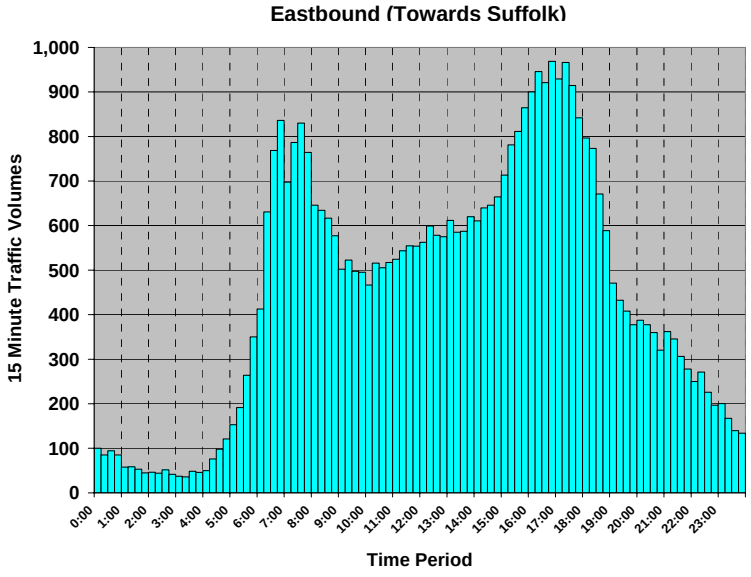
High Rise Bridge

The peak hours at the High Rise Bridge carry more traffic than at the other analyzed bridges and tunnels. The flow rate at the High Rise Bridge approaches 2,000 vehicles per lane per hour, which is 200-400 vehicles per lane per hour higher than the volumes at the Downtown Tunnel and Hampton Roads Bridge-Tunnel.

While the peak hours at the High Rise Bridge carry more traffic than other analyzed facilities, the peak travel periods are shorter in length, especially during the morning.

Figure 12 – 15-minute Traffic Volumes at the High Rise Bridge, 2003





Data Source: VDOT. Data was collected the week of 10/20-03 – 10/24/03. Data does not include the highest and lowest volumes from the week for each time period to account for incidents.

Travel Speeds

Included in this section is an analysis of travel times and speeds approaching four congested bridges and tunnels. These facilities include the High Rise Bridge, Hampton Roads Bridge-Tunnel, Midtown Tunnel, and Downtown Tunnel.

For each facility, three travel time runs were conducted on separate days in each direction during both the morning and afternoon peak periods. The travel time runs were conducted in October and November 2004, except at the Downtown Tunnel, which had data collected for the Downtown Tunnel Traffic Management Study in May 2003. Delays were then calculated by comparing the measured speeds versus posted speed limits.

There are a few limitations with this travel speed data. These limitations include:

- Speed data reflects mainline speeds only. Backups resulting on ramps are not reflected in the delay calculations.
- Runs were taken on Tuesdays-Thursdays. Data was not collected on Fridays, which are the busiest days of the week at these facilities.
- Data only reflects recurring delays at these facilities. Many of the notorious delays at these congested bridges and tunnels are the result of incidents, which is not reflected in this analysis.

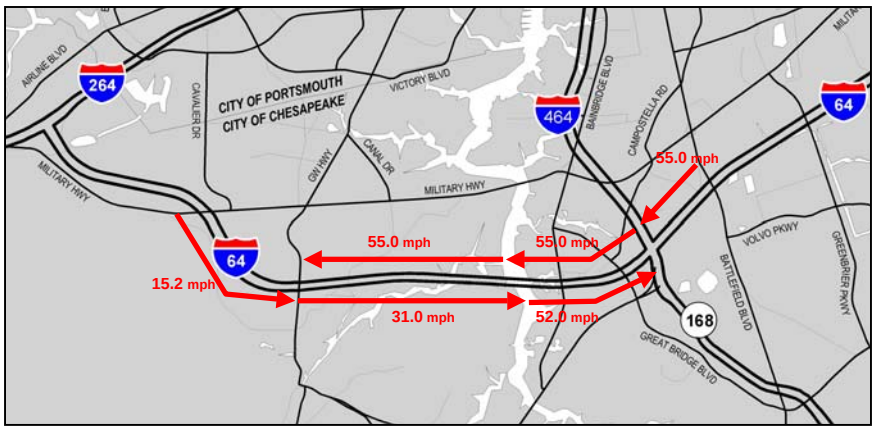
High Rise Bridge

Travel times approaching the High Rise Bridge are greatly affected by the weaving areas at the adjacent interchanges with George Washington Hwy and I-464.

The largest recurring delays at the High Rise

Figure 13 – Average Travel Speeds and Recurring Delay Approaching the High Rise Bridge

Morning Peak Period



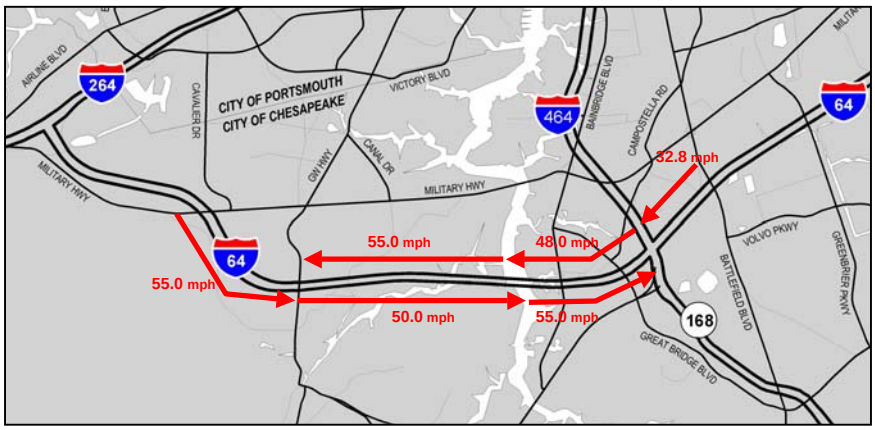
I-64 Towards Virginia Beach
From Military Hwy to I-464

Free Flow Travel Time	6.4 min
Actual Travel Time	13.2 min
Average Speed	26.8 mph
Average Delay	6.8 min/veh

I-64 Towards Suffolk
From Battlefield Blvd to GW Hwy

Free Flow Travel Time	6.0 min
Actual Travel Time	6.0 min
Average Speed	55.0 mph
Average Delay	0.0 min/veh

Afternoon Peak Period



I-64 Towards Virginia Beach
From Military Hwy to I-464

Free Flow Travel Time	6.4 min
Actual Travel Time	6.8 min
Average Speed	52.5 mph
Average Delay	0.4 min/veh

I-64 Towards Suffolk
From Battlefield Blvd to GW Hwy

Free Flow Travel Time	6.0 min
Actual Travel Time	7.2 min
Average Speed	45.5 mph
Average Delay	1.2 min/veh

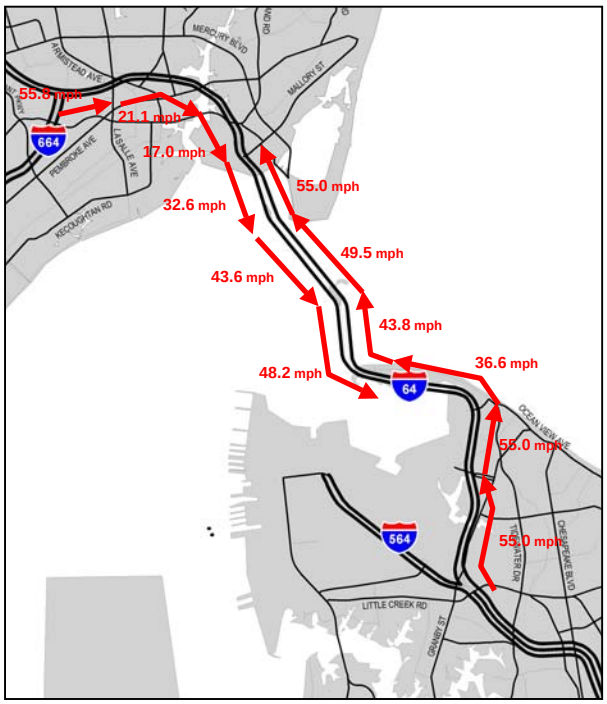
Bridge occur for traffic heading towards Virginia Beach during the morning peak period. Delays in this direction, which are nearly seven minutes per vehicle, are comparable to the congested tunnel facilities.

Hampton Roads Bridge-Tunnel

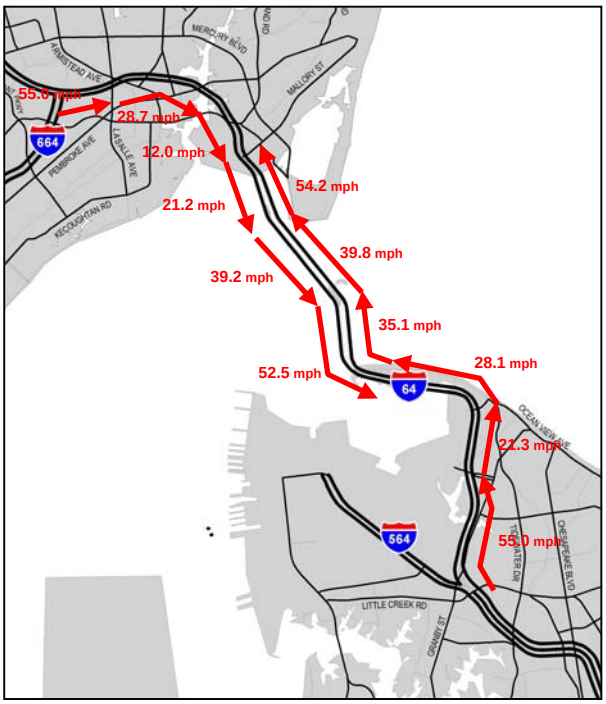
The Hampton Roads Bridge-Tunnel is notorious for backups that can stretch as much as ten miles in length. However, these delays are largely due to incidents that result from already congested conditions. Recurring delays during the peak periods at the Hampton Roads Bridge-Tunnel are much more manageable. Although traffic backs up as far as the Hampton Creek Bridge eastbound (approximately 2.5 miles) and Bay Avenue westbound (approximately 4 miles), peak period delays were calculated to be between 5-7 minutes per vehicle. Westbound delays during the morning peak period were lower, at 1.6 minutes per vehicle.

Figure 14 – Average Travel Speeds and Recurring Delay Approaching the Hampton Roads Bridge-Tunnel

Morning Peak Period



Afternoon Peak Period



Morning Peak Period

Eastbound I-64 From I-664 to 15th View St		**Westbound I-64** From I-564 to Mallory St	
Free Flow Travel Time	8.3 min	Free Flow Travel Time	9.5 min
Actual Travel Time	15.0 min	Actual Travel Time	11.1 min
Average Speed	30.4 mph	Average Speed	47.1 mph
Average Delay	6.7 min/veh	Average Delay	1.6 min/veh

Afternoon Peak Period

Eastbound I-64 From I-664 to 15th View St		**Westbound I-64** From I-564 to Mallory St	
Free Flow Travel Time	8.3 min	Free Flow Travel Time	9.5 min
Actual Travel Time	15.5 min	Actual Travel Time	14.6 min
Average Speed	29.5 mph	Average Speed	35.9 mph
Average Delay	7.2 min/veh	Average Delay	5.1 min/veh

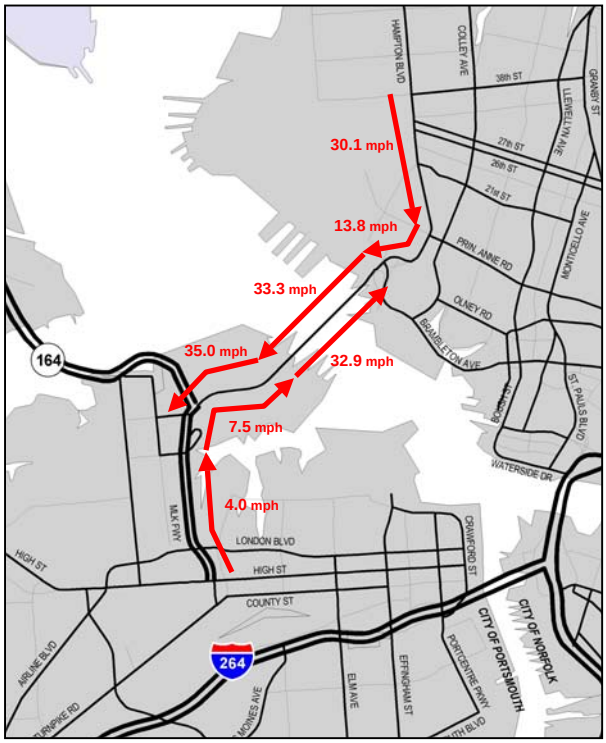
Midtown Tunnel

With morning delays of over 18 minutes per vehicle in the northbound direction and afternoon delays of over 11 minutes per vehicle in the southbound direction, the Midtown Tunnel has the largest recurring delays among the analyzed facilities. In each direction, delays are greatly affected by traffic merging near the entrance of the tunnel, from the Western Freeway and Pinners Point neighborhood in the northbound direction and by Brambleton Avenue in the southbound direction. The analyzed data does not reflect delays on these other merging routes.

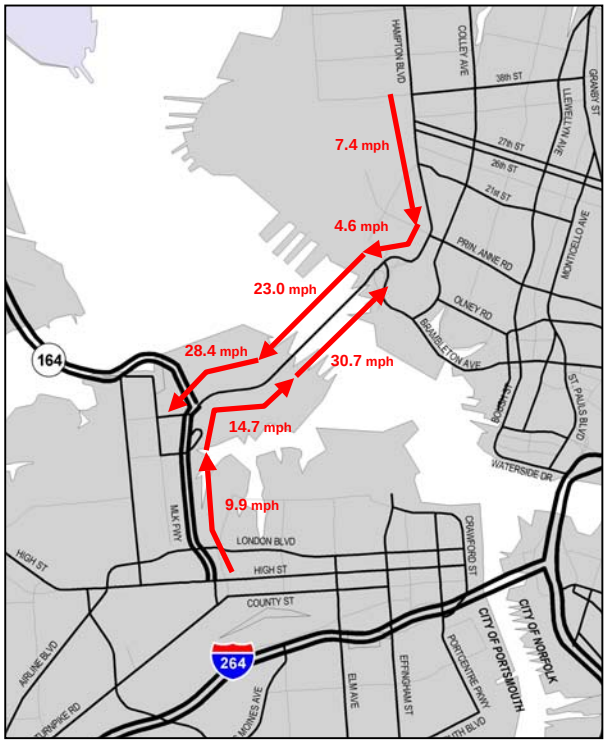
It should be noted that travel time runs were taken with the newly constructed Pinners Point Connecter only partially open. Travel speeds may be affected by the construction and temporary traffic patterns.

Figure 15 – Average Travel Speeds and Recurring Delay Approaching the Midtown Tunnel

Morning Peak Period



Afternoon Peak Period



Northbound MLK Fwy From High St to Brambleton Ave		**Southbound Hampton Blvd** From 38th St to Wesley St	
Free Flow Travel Time	4.4 min	Free Flow Travel Time	5.4 min
Actual Travel Time	22.8 min	Actual Travel Time	6.3 min
Average Speed	7.3 mph	Average Speed	27.9 mph
Average Delay	18.4 min/veh	Average Delay	0.9 min/veh

Northbound MLK Fwy From High St to Brambleton Ave		**Southbound Hampton Blvd** From 38th St to Wesley St	
Free Flow Travel Time	4.4 min	Free Flow Travel Time	5.4 min
Actual Travel Time	11.1 min	Actual Travel Time	16.7 min
Average Speed	14.9 mph	Average Speed	10.6 mph
Average Delay	6.7 min/veh	Average Delay	11.3 min/veh

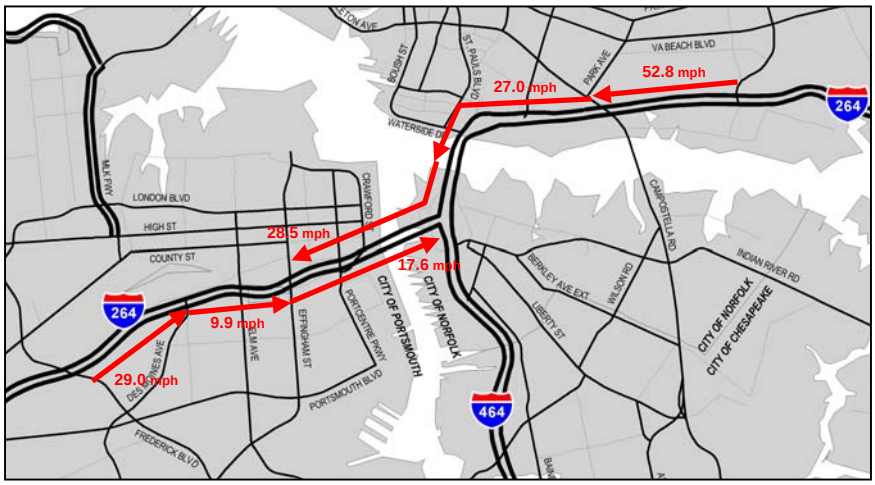
Downtown Tunnel

There are delays in both directions at the Downtown Tunnel during both peak periods. Larger delays are experienced by traffic heading eastbound toward Norfolk during the morning peak period and westbound toward Portsmouth during the afternoon peak period. These recurring delays, in the vicinity of seven minutes per vehicle, are similar to those experienced at the Hampton Roads Bridge-Tunnel.

Although these mainline delays are significant, larger delays can be found on adjacent arterials and onramps in Downtown Norfolk and Portsmouth during the afternoon peak periods.

Figure 16 – Average Travel Speeds and Recurring Delay Approaching the Downtown Tunnel

Morning Peak Period



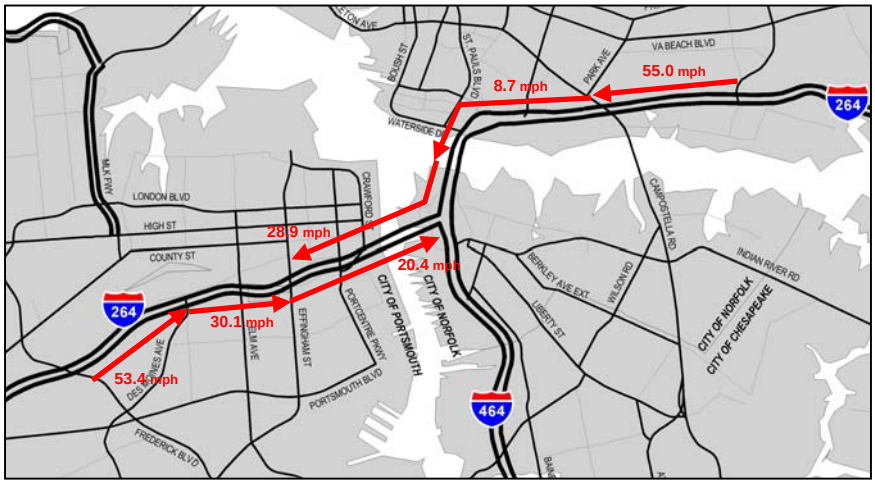
Eastbound I-264
From Frederick Blvd to I-464

Free Flow Travel Time	3.8 min
Actual Travel Time	10.2 min
Average Speed	16.5 mph
Average Delay	6.4 min/veh

Westbound I-264
From Ballentine Blvd to Effingham St

Free Flow Travel Time	4.8 min
Actual Travel Time	6.8 min
Average Speed	31.2 mph
Average Delay	2.0 min/veh

Afternoon Peak Period



Eastbound I-264
From Frederick Blvd to I-464

Free Flow Travel Time	3.8 min
Actual Travel Time	5.8 min
Average Speed	28.9 mph
Average Delay	2.0 min/veh

Westbound I-264
From Ballentine Blvd to Effingham St

Free Flow Travel Time	4.8 min
Actual Travel Time	12.3 min
Average Speed	17.2 mph
Average Delay	7.5 min/veh

Safety

While limited capacity is a problem at the regional bridges and tunnels, incidents further contribute to this congestion. Many types of incidents, including crashes, disabled vehicles, flat tires, and vehicle escorts, contribute to additional delays at regional bridges and tunnels. At the area's drawbridges, bridge openings also contribute to these additional delays.

Although most of the Hampton Roads freeway system is covered by the VDOT Freeway Incident Response Team, most of the regional bridges and tunnels have their own safety patrols. Having these safety patrols on site helps to reduce the amount of time traffic is affected by the various types of incidents.

Table 3 shows the number of traffic stoppages by type reported at the regional tunnel facilities in 2003. The numbers are staggering: Over 10,000 traffic stoppages, 200,000 vehicle inspections, and 14,000 overheight vehicles recorded at the four tunnel facilities in 2003. Of these 10,000 traffic stoppages, nearly 1,000, or an average of three every day of the year, were due to crashes.

Although the Monitor-Merrimac Memorial Bridge-Tunnel had the most traffic stoppages in 2003, most of these were to allow for vehicle escorts. Both the Hampton Roads Bridge-Tunnel and the Downtown Tunnel had around 2,500 traffic stoppages in 2003, or nearly seven each and every day.

Table 4 shows the number of traffic stoppages between 1999 and 2003 at regional bridges and tunnels. At all of the facilities except for the Downtown Tunnel, the number of traffic stoppages decreased over the five-year period. The number of bridge openings at the James River Bridge and the Coleman Bridge also decreased considerably.

Table 3 – Types of Traffic Stoppages Reported at Regional Tunnel Facilities, 2003

Reason for Traffic Stoppage	Downtown Tunnel	Hampton Roads Bridge-Tunnel	Midtown Tunnel	Monitor-Merrimac Mem. Bridge-Tunnel
Stalled Vehicles	1,015	984	233	689
Flat Tire	223	436	60	329
Out of Gas	423	252	80	252
Vehicle Escorts	84	193	110	2,574
Accident	673	217	73	32
Fires	10	5	0	1
Miscellaneous	39	423	1,019	68
Total Stoppages	2,467	2,510	1,575	3,945
Vehicle Inspections	48,795	79,613	13,572	71,271
Overheight Vehicles Stopped, Measured, and Turned Around	6,051	7,825	930	0

Data Source: VDOT.

Table 4 – Traffic Stoppages Reported at Regional Bridge and Tunnel Facilities, 1999 - 2003

Year	Downtown Tunnel	Hampton Roads Bridge-Tunnel	Midtown Tunnel	Monitor-Merrimac Mem. Bridge-Tunnel	James River Bridge	Coleman Bridge
1999	2,213	2,839	1,756	4,649	**738** stoppages **739** bridge openings	**29** stoppages **237** bridge openings
2000	2,313	2,750	1,723	4,441	**541** stoppages **709** bridge openings	**31** stoppages **232** bridge openings
2001	1,643	2,641	1,311	4,020	**470** stoppages **664** bridge openings	**26** stoppages **198** bridge openings
2002	2,335	2,751	1,811	3,744	**468** stoppages **499** bridge openings	**32** stoppages **275** bridge openings
2003	2,467	2,510	1,575	3,945	**461** stoppages **434** bridge openings	**20** stoppages **167** bridge openings

Data Source: VDOT.

CMS ROADWAY NETWORK

The Congestion Management System (CMS) roadway network is the same as the Virginia Department of Transportation (VDOT) Thoroughfare System, which is used for long-range planning purposes in Hampton Roads. The network is comprised of all interstates, expressways, principal and minor arterials, and selected collectors within the Hampton Roads Metropolitan Study Area. The 2003 Existing CMS roadway network has been expanded from the previous reports and includes approximately 1,330 centerline-miles, which translates to 4,666 lane-miles of existing roadway. The 2000 CMS roadway network included 1,163 centerline-miles or 4,169 lane-miles.

Roadway Capacity Improvements by 2008 and 2026

One of the effective strategies to reduce congestion levels is to increase the capacity of a roadway. Widening existing roadways or adding new facilities to the roadway network is vital when conditions are appropriate and space is available, however capacity improvements are not the only solution to improving levels of service. Other strategies, such as improved signal coordination and Intelligent Transportation System (ITS) technologies, which enable the roadway network to be utilized in the most efficient manner are important and oftentimes less costly. These various types of strategies aimed to reduce congestion will be discussed later in this document.

Interstate 64 in Hampton, Virginia is currently being widened from 6 to 8 lanes.

Roadway capacity is measured in lane-miles, which is the product of the number of lanes by the length of the roadway segment. A four-lane roadway segment that is two miles in length has 8 lane-miles.

Map 2 and Map 3 on pages 25 and 26 show the location of roadways included in the CMS analysis as well as the programmed (*Hampton Roads Transportation Improvement Program – TIP FY 05-08)* and planned (*Hampton Roads 2026 Regional Transportation* Plan) roadway capacity improvement projects that are expected to be completed by 2008 and 2026.

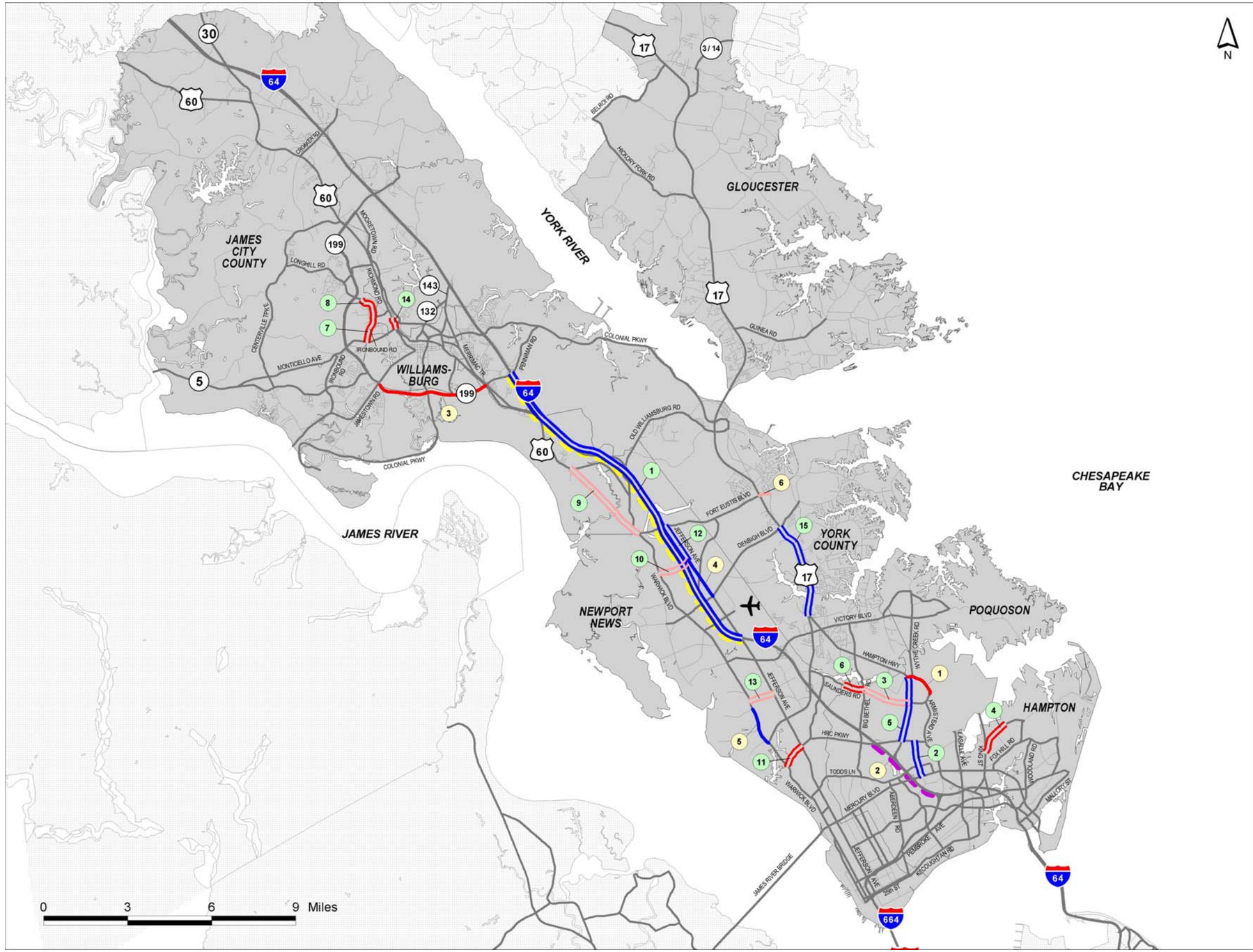
A total of 583 lane-miles are expected to be added to the existing roadway network by 2026, an increase of approximately 13%. In contrast, the last CMS update showed that 942 lane-miles of new roadway were expected to be added to the 2000 Existing roadway network by 2021, an increase of 23%.

Traffic Volumes

The Virginia Department of Transportation collects traffic volumes for many Hampton Roads' jurisdictions on a three-year cycle. For this CMS study, traffic counts were collected in 2001, 2002, and 2003. For the remainder of this study, the phrase "2003 Existing" means the latest traffic count that was available was used for that location during the three-year time period. Some jurisdictions collect traffic data on a yearly basis, thus 2003 counts were available for those roadways.

The regional travel demand model was used to project the Hampton Roads study area traffic volumes for the years 2008 and 2026. 2026 traffic volumes were obtained directly from the Hampton Roads 2026 Regional Transportation Plan, with the exception of a few planned roadways where updated project study volumes were available from VDOT. The 2026 traffic volumes reflect all regional transit (i.e. Light Rail), interchange, and intersection improvements included in the Hampton Roads 2026 Regional Transportation Plan.

A list of the roadway segments included in the CMS congestion analysis, including segment lengths and historical, existing, and future projected traffic volumes, is included in **Appendix A** and **B** in the accompanying **Congestion Management System Technical Appendix.**



Map 2
Planned and Programmed Roadway Capacity Improvements by 2026
Hampton Roads - Peninsula

Legend

Programmed Capacity Improvements to the CMS Network completed in the TIP* by 2008

- New 4-lane facility
- Widen to 4 lanes
- Widen to 6 lanes
- Add 2 HOV lanes

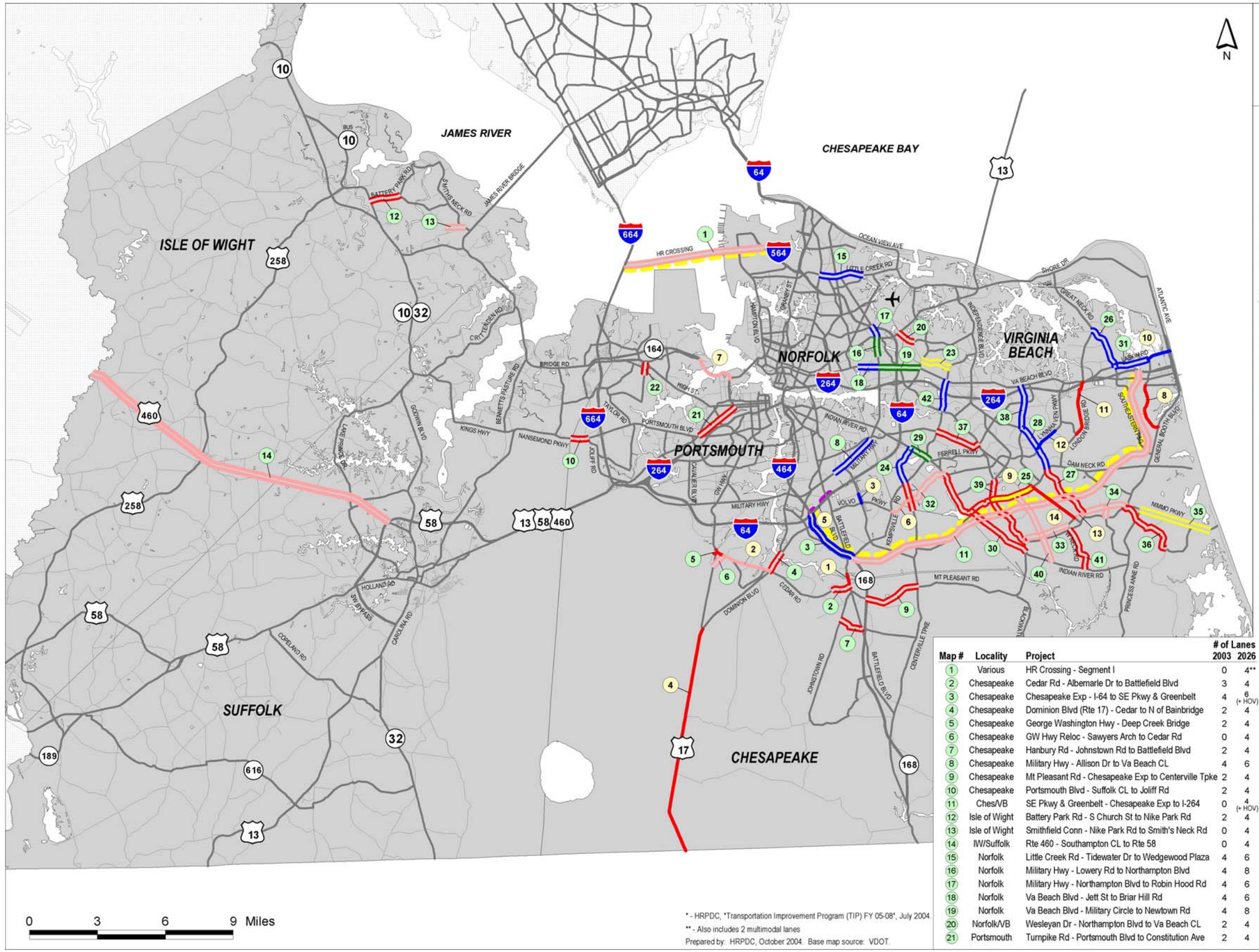
Map #	Locality	Project	# of Lanes 2003	2008
1	Hampton	Armistead Ave/Semple Farm Rd - Magruder Blvd to NASA Main Gate	2	4
2	Hampton	I-64 - HRC Pkwy to I-664	6-8	6-8 (+ HOV)
3	James City	Rte 199 - Brookwood Dr to Pocahontas Tr	2	4
4	Newport News	Jefferson Ave - Buchanan Dr to Green Grove Ln	4	6
5	Newport News	Warwick Blvd - Nettles Ln to J Clyde Morris Blvd	4	6
6	York	Rte 1050 - Rte 17 to Old York-Hampton Hwy	0	4

Planned Capacity Improvements to the CMS Network in the 2026 Long-Range Plan

- New 4-lane facility
- Widen to 4 lanes
- Widen to 6 lanes
- Add 2 HOV lanes

Map #	Locality	Project	# of Lanes 2003	2026
1	Various	I-64 - Bland Blvd to Rte 199 (SE of Williamsburg) (includes concurrent HOV lanes)	4	6 (+ HOV)
2	Hampton	Coliseum Dr - Mercury Blvd to HRC Pkwy	4	6
3	Hampton	Cmdr Shepard - Magruder Blvd to Big Bethel Rd	0	4
4	Hampton	Little Back River Rd - King St to Wilderness Rd	2	4
5	Hampton	Magruder Blvd - Semple Farm Rd to HRC Pkwy	4	6
6	Hampton	Saunders Rd - Newport News CL to Big Bethel Rd	2	4
7	James City	Ironbound Rd - Longhill Conn to Monticello Rd	2	4
8	James City	Longhill Connector - Longhill Rd to Ironbound Rd	2	4
9	JCC/NN	Rte 60 Relocated - BASF Dr to Fort Eustis Blvd	0	4
10	Newport News	Atkinson Blvd - Warwick Blvd to Jefferson Ave	0	4
11	Newport News	Harpersville Rd - Warwick Blvd to Jefferson Ave	2	4
12	Newport News	Jefferson Ave - Green Grove Ln to Ft Eustis Blvd	4	6
13	Newport News	Middleground Blvd - Warwick Blvd to Jefferson Ave	0	4
14	Williamsburg	Richmond Rd - Monticello Ave to New Hope Rd	3	4
15	York	Rte 17 - Hampton Hwy to Wolf Trap Rd	4	6

* - HRPDC, *Transportation Improvement Program (TIP) FY 05-08*, July 2004.
Prepared by: HRPDC, October 2004. Base map source: VDOT.



Map 3
Planned and Programmed Roadway Capacity Improvements by 2026
Hampton Roads - Southside

Legend

Programmed Capacity Improvements to the CMS Network completed in the TIP* by 2008

- New 2-lane facility
- New 4-lane facility
- Widen to 4-lane facility
- Widen to 6-lane facility
- Add 2 HOV lanes

Map #	Locality	Project	# of Lanes 2003	2008
1	Chesapeake	Battlefield Blvd - Great Bridge Bridge	2	4
2	Chesapeake	Cedar Rd - GW Hwy to Dominion Blvd	0-2	4
3	Chesapeake	Greenbrier Pkwy - Volvo Pkwy to Eden Way	5	6
4	Chesapeake	Route 17 - NC State Line to Dominion Blvd	2	4
5	Chesapeake	I-64 - Battlefield Blvd to I-464	6	6 (+ HOV)
6	Ches/VB	Volvo/Lynnhaven - Kempsville Rd to Centerville Tpke	0	4
7	Portsmouth	Pinners Point Connector	0	4-6
8	Va Beach	Birdneck Rd - Norfolk Ave to General Booth Blvd	2	4
9	Va Beach	Elbow Rd - Salem Rd to Princess Anne Rd	0	2
10	Va Beach	Laskin Rd - Birdneck Rd to Atlantic Ave	4	6
11	Va Beach	London Bridge/Great Neck - International to VB Blvd	2	4
12	Va Beach	Lynnhaven Pkwy - Holland Rd to Lishelle Place	4	6
13	Va Beach	Nimmo Pkwy - Princess Anne Rd to Holland Rd	0	4
14	Va Beach	Princess Anne Rd - Dam Neck Rd to Nimmo Pkwy	2	4

Planned Capacity Improvements to the CMS Network in the 2026 Long-Range Plan

- New 2-lane facility
- New 4-lane facility
- Widen to 4-lane facility
- Widen to 6-lane facility
- Widen to 8-lane facility
- Add 2 HOV/multimodal lanes

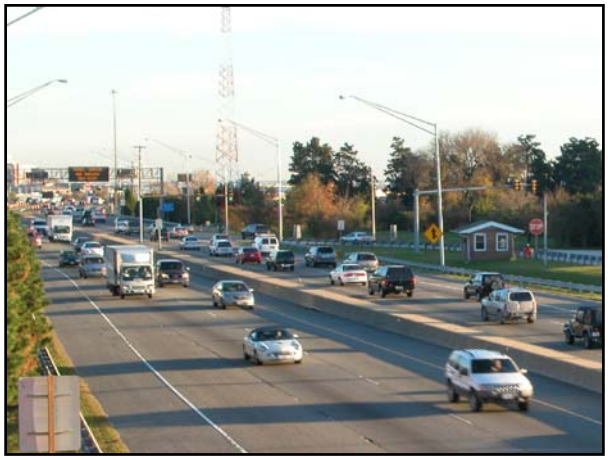
Map #	Locality	Project	# of Lanes 2003	2026
1	Various	HR Crossing - Segment I	0	4**
2	Chesapeake	Cedar Rd - Albemarle Dr to Battlefield Blvd	3	4
3	Chesapeake	Chesapeake Exp - I-64 to SE Pkwy & Greenbelt	4	6 (+ HOV)
4	Chesapeake	Dominion Blvd (Rte 17) - Cedar to N of Bainbridge	2	4
5	Chesapeake	George Washington Hwy - Deep Creek Bridge	2	4
6	Chesapeake	GW Hwy Reloc - Sawyers Arch to Cedar Rd	0	4
7	Chesapeake	Hanbury Rd - Johnstown Rd to Battlefield Blvd	2	4
8	Chesapeake	Military Hwy - Allison Dr to Va Beach CL	4	6
9	Chesapeake	Mt Pleasant Rd - Chesapeake Exp to Centerville Tpke	2	4
10	Chesapeake	Portsmouth Blvd - Suffolk CL to Joliff Rd	2	4
11	Ches/VB	SE Pkwy & Greenbelt - Chesapeake Exp to I-264	0	4 (+ HOV)
12	Isle of Wight	Battery Park Rd - S Church St to Nike Park Rd	2	4
13	Isle of Wight	Smithfield Conn - Nike Park Rd to Smith's Neck Rd	0	4
14	IW/Suffolk	Rte 460 - Southampton CL to Rte 58	0	4
15	Norfolk	Little Creek Rd - Tidewater Dr to Wedgewood Plaza	4	6
16	Norfolk	Military Hwy - Lowery Rd to Northampton Blvd	4	8
17	Norfolk	Military Hwy - Northampton Blvd to Robin Hood Rd	4	6
18	Norfolk	Va Beach Blvd - Jett St to Briar Hill Rd	4	6
19	Norfolk	Va Beach Blvd - Military Circle to Newtown Rd	4	8
20	Norfolk/VB	Wesleyan Dr - Northampton Blvd to Va Beach CL	2	4
21	Portsmouth	Turnpike Rd - Portsmouth Blvd to Constitution Ave	2	4
22	Portsmouth	Tyre Neck Rd - Chesapeake CL to Churchland Blvd	2	4
23	Va Beach	Baker Rd - East of Newtown Rd to Witchduck Rd	0	2
24	Va Beach	Centerville Tpke - Chesapeake CL to Indian River Rd	2	4-6
25	Va Beach	Elbow Rd - Indian River Rd to Princess Anne Rd	0	4
26	Va Beach	First Colonial Rd - Great Neck Rd to Va Beach Blvd	4	6
27	Va Beach	Holland Rd - Dam Neck Rd to Nimmo Pkwy	2	4
28	Va Beach	Holland Rd - Rosemont Rd to Dam Neck Rd	4	6
29	Va Beach	Indian River Rd - Centerville Tpke to Ferrell Pkwy	6	8
30	Va Beach	Indian River Rd - Lynnhaven Pkwy to N Landing Rd	2	4
31	Va Beach	Laskin Rd - First Colonial Rd to Birdneck Rd	4	6
32	Va Beach	Lynnhaven Pkwy - Centerville Tpke to Indian River Rd	0	4
33	Va Beach	Nimmo Pkwy - Salem/North Landing to West Neck Rd	0	4
34	Va Beach	Nimmo Pkwy - Holland Rd to General Booth Blvd	0	4
35	Va Beach	Nimmo Pkwy - Upton Dr to Sandfiddler Rd	0	2
36	Va Beach	Princess Anne/Sandbridge - Gen. Booth to Atwoodtown	2	4
37	Va Beach	Providence Rd - Kempsville Rd to Princess Anne Rd	2	4
38	Va Beach	Rosemont Rd - Va Beach Blvd to Holland Rd	4	6
39	Va Beach	Salem Rd - Independence Blvd to North Landing Rd	2	4
40	Va Beach	West Neck Pkwy - Elbow Rd to Indian River Rd	0	4
41	Va Beach	West Neck Rd - North Landing Rd to Indian River Rd	2	4
42	Va Beach	Witchduck Rd - Va Beach Blvd to Princess Anne Rd	4	6

* - HRPDC, *Transportation Improvement Program (TIP) FY 05-08*, July 2004.
** - Also includes 2 multimodal lanes
Prepared by: HRPDC, October 2004. Base map source: VDOT.

Maps 4 to 7 on pages 29 to 32 show the magnitude of average weekday travel throughout the Hampton Roads region for the 2003 Existing and 2026 conditions, respectively.

Lane-Miles and Vehicle-Miles of Travel

National studies have shown that more and more cars are driving the roadways each year in the United States and Hampton Roads is no different. Although transit usage has increased in the region, data indicates that more people are driving the roads each year than the previous year. The amount of roadway travel is measured in terms of vehicle-miles of travel (VMT), which is the sum of the number of miles every vehicle throughout the region travels.



The amount of travel occurring on regional roadways is higher than ever before, outpacing both regional population growth and roadway capacity growth.

The combination of lane-miles and daily traffic for existing and projected conditions indicates that the rate of increase in daily vehicle-miles of travel (VMT) is expected to outpace the construction of capacity on the CMS roadways in Hampton Roads. **Figures 17 and 18** show the expected growth in CMS lane-miles and VMT from 2003 Existing conditions to future years 2008 and 2026 by roadway functional class for the entire region. **Tables 5 and 6** on page 33 provide an in-depth analysis of these trends for each Hampton Roads' locality.

A total of 583 lane-miles are expected to be added to the existing regional roadway network by 2026 at an annual rate of 0.5%. VMT is projected to increase by nearly 9.5 million by 2026 at an annual rate of 1.1%, more than double the rate of capacity improvements (**Figure 19**). In the last CMS update, 942 lane-miles of new roadway were expected to be added to the 2000 Existing roadway network by 2021 at an annual rate of 1.0%, while VMT was expected to grow by 1.2% each year (**Figure 20**). Clearly, the gap between capacity improvements and roadway travel has widened even further due to financial constraint and capacity improvement cutbacks.

Figure 17 – Projected Growth in CMS Roadway Capacity (Lane-Miles)

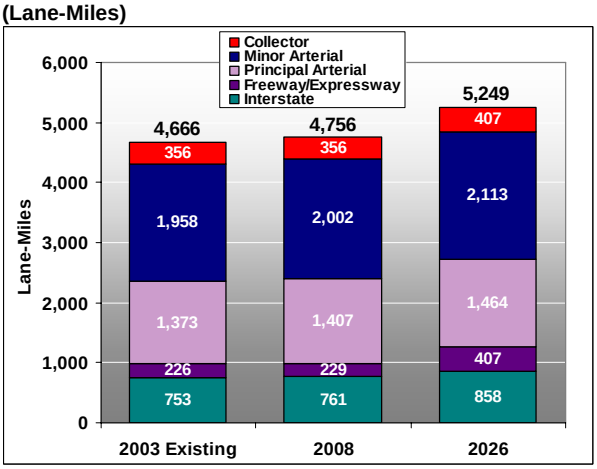


Figure 18 – Projected Growth in CMS Roadway Travel (VMT)

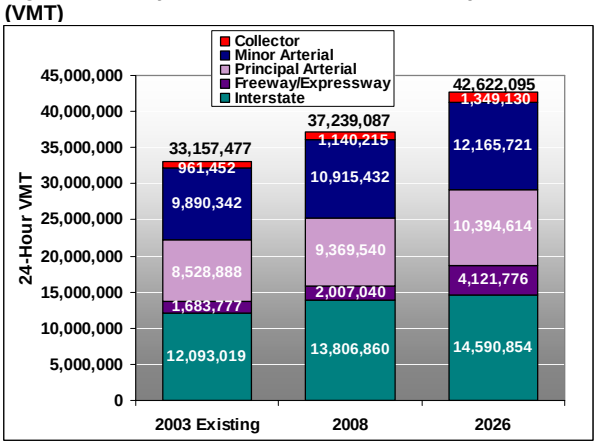


Figure 19 – Average Annual Rate of Growth: CMS Lane-Miles vs. VMT (2003 Existing – 2026)

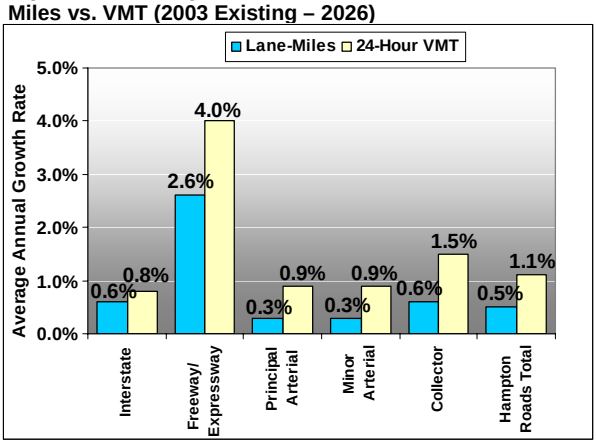
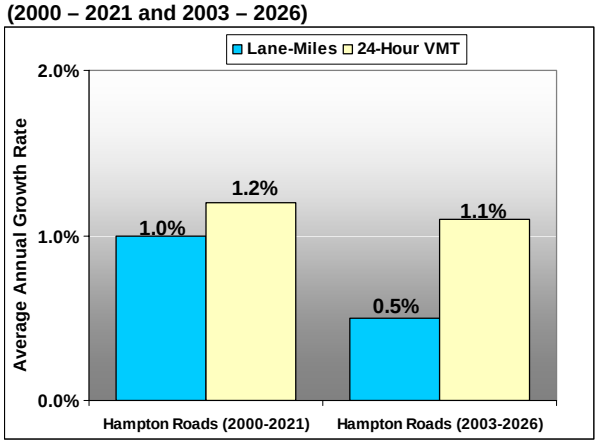
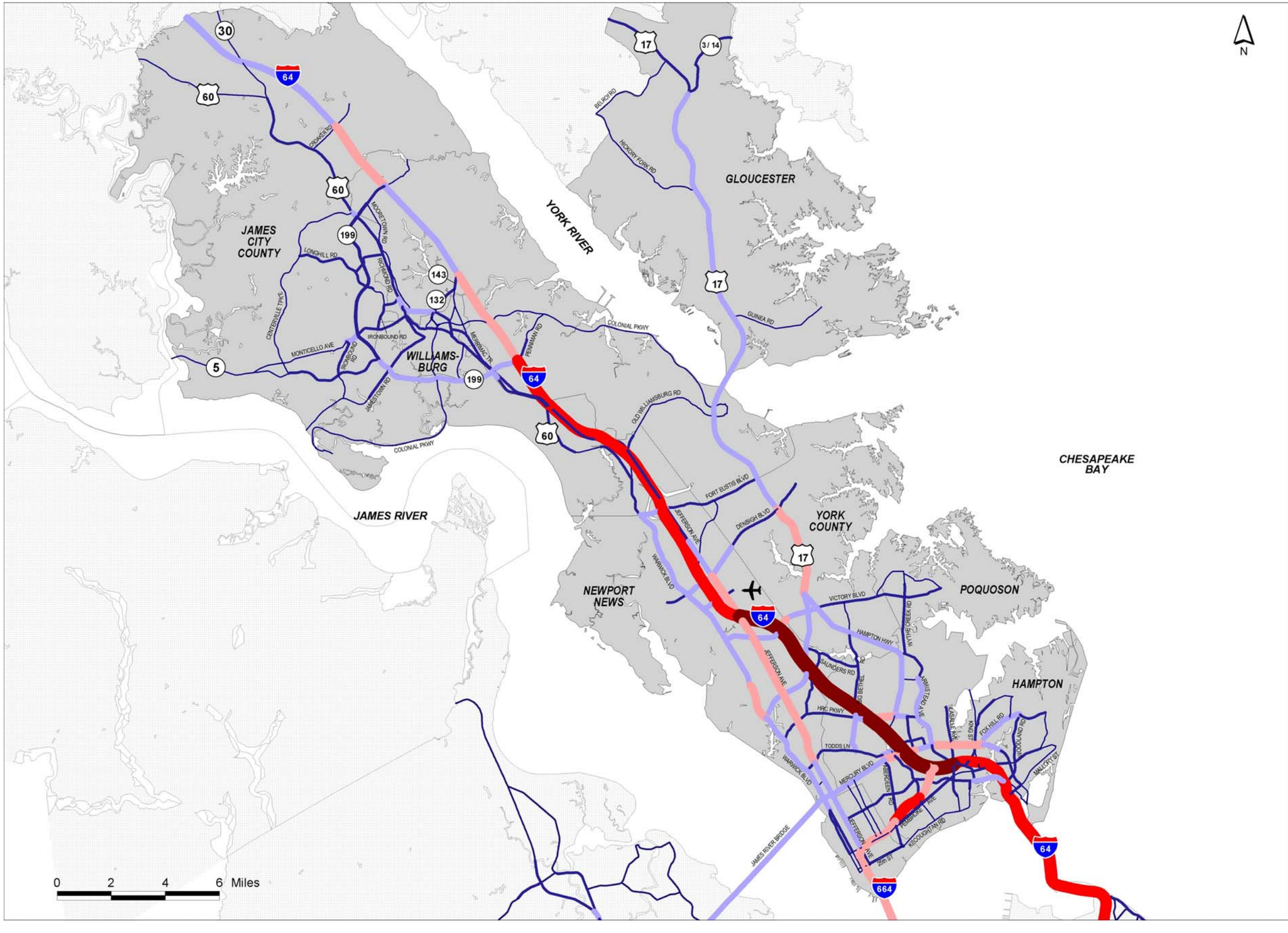


Figure 20 – Comparison of Average Annual Rate of Growth for Entire CMS Roadway Network: CMS Lane-Miles vs. VMT (2000 – 2021 and 2003 – 2026)



No jurisdiction is expected to add more than 60 lane-miles to its existing roadway network, except for the Cities of Chesapeake and Virginia Beach. Chesapeake expects to add 100 lane-miles of new roadway and Virginia Beach anticipates 223 lane-miles, most of which is from the Southeastern Parkway and Greenbelt project. Roadway capacity improvements in these two Cities account for nearly 55% of the regional total.

The Cities of Chesapeake, Suffolk, and Virginia Beach are expected to experience the largest increases in VMT growth by 2026 accounting for 23%, 14%, and 13% of the regional total, respectively.



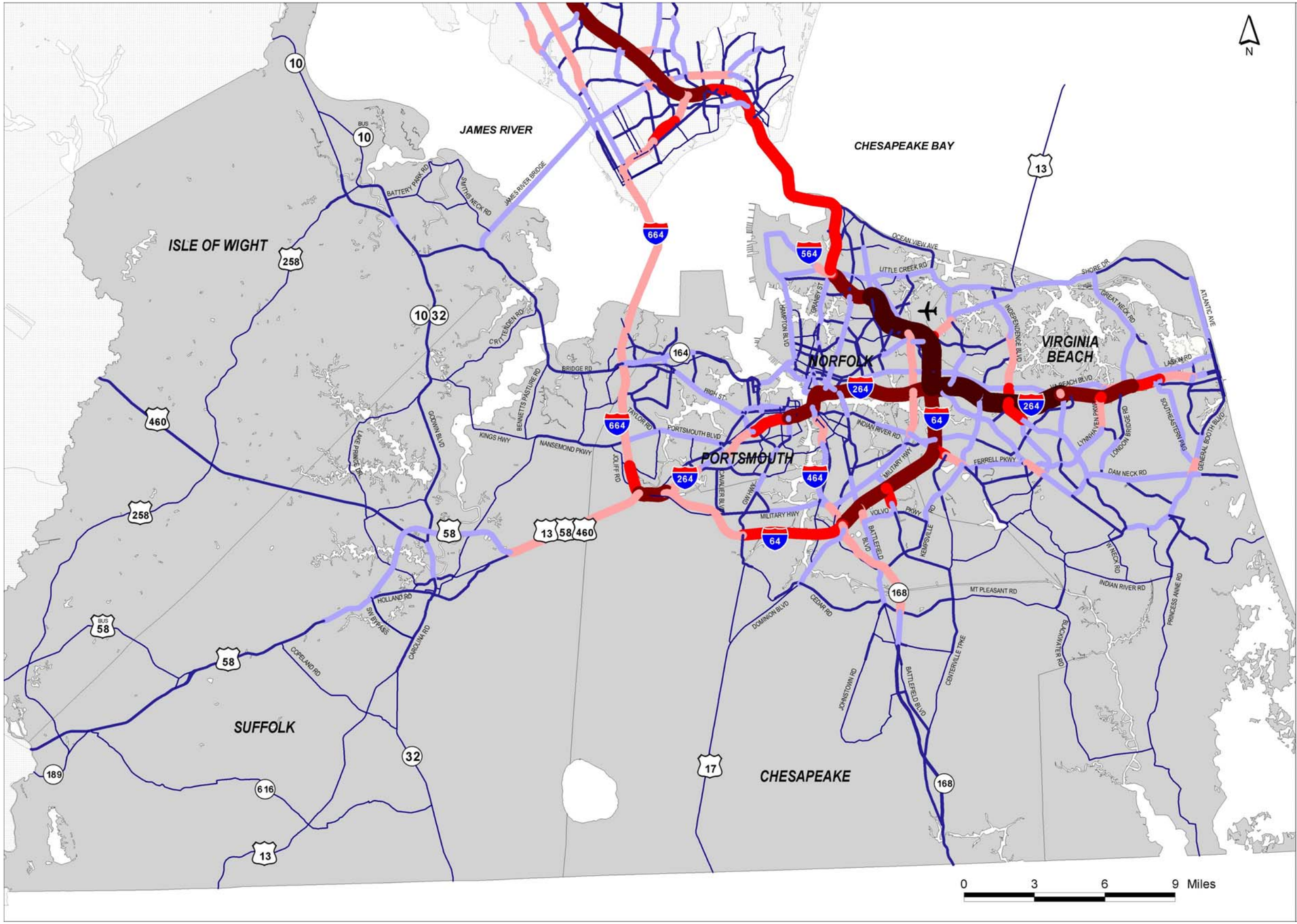
Map 4
2003 Existing
Average Weekday Traffic Volumes
Hampton Roads - Peninsula

Legend

Average Weekday Traffic Volumes

- < 10,000
- 10,000 - 24,999
- 25,000 - 49,999
- 50,000 - 74,999
- 75,000 - 99,999
- 100,000 - 149,999
- > 150,000

Prepared by: HRPDC, October 2004. Base map source: VDOT.



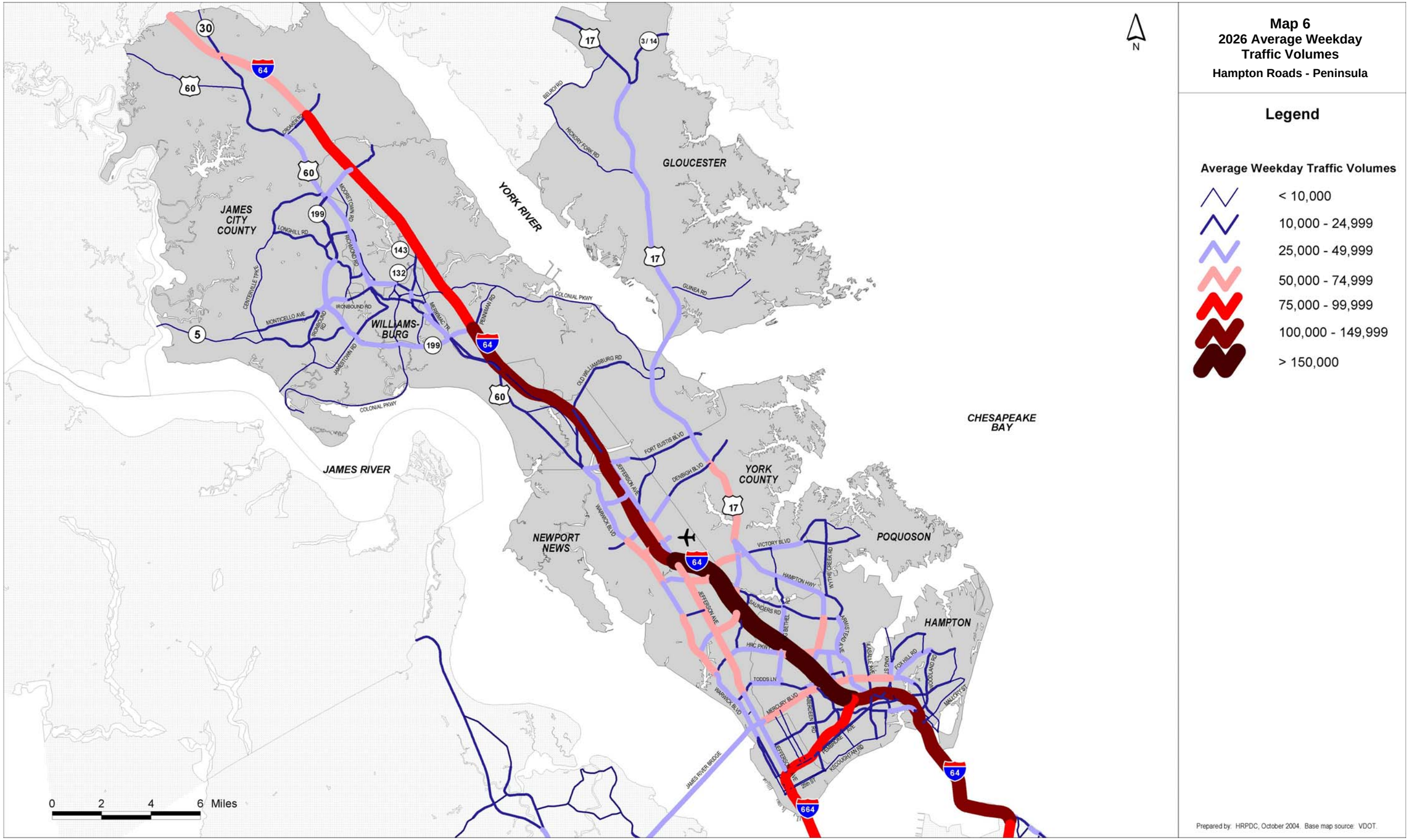
Map 5
2003 Existing
Average Weekday Traffic Volumes
Hampton Roads - Southside

Legend

Average Weekday Traffic Volumes

- < 10,000
- 10,000 - 24,999
- 25,000 - 49,999
- 50,000 - 74,999
- 75,000 - 99,999
- 100,000 - 149,999
- > 150,000

Prepared by: HRPDC, October 2004. Base map source: VDOT.



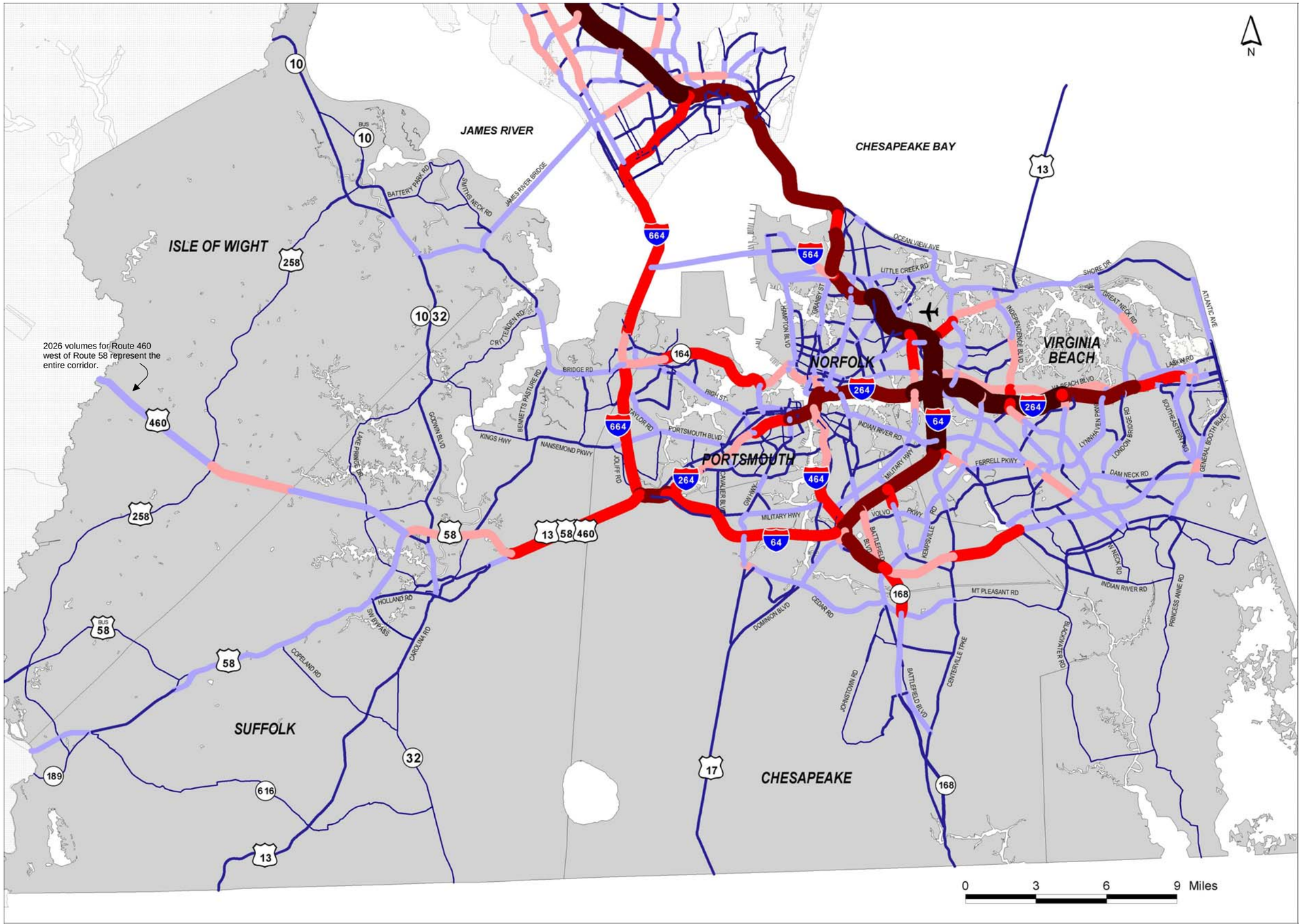
Map 6
2026 Average Weekday Traffic Volumes
Hampton Roads - Peninsula

Legend

Average Weekday Traffic Volumes

- < 10,000
- 10,000 - 24,999
- 25,000 - 49,999
- 50,000 - 74,999
- 75,000 - 99,999
- 100,000 - 149,999
- > 150,000

Prepared by: HRPDC, October 2004. Base map source: VDOT.



Map 7
2026 Average Weekday Traffic Volumes
Hampton Roads - Southside

Legend

Average Weekday Traffic Volumes

- < 10,000
- 10,000 - 24,999
- 25,000 - 49,999
- 50,000 - 74,999
- 75,000 - 99,999
- 100,000 - 149,999
- > 150,000

Prepared by: HRPDC, October 2004. Base map source: VDOT.

Table 5 – Expected Growth in CMS Lane-Miles By Facility Type and Locality (2003 Existing to 2026)

Facility Type	Lane- Miles	Che	Glo	Hamp	IW	JCC	NN	Nor	Poq	Por	Suf	VaB	Wmb	York	TOTAL
Interstate	2003 Existing	129	0	90	0	44	95	172	0	30	27	121	0	45	753
	2008 Projected	131	0	96	0	44	95	172	0	30	27	121	0	45	761
	2026 Projected	131	0	96	0	54	129	188	0	56	30	121	0	53	858
	Change (2003-2026)	2	0	6	0	10	34	16	0	26	3	0	0	8	104
	AGR (2003 to 2026)	0.1%	-	0.3%	-	0.8%	1.3%	0.4%	-	2.7%	0.5%	0.0%	-	0.7%	0.6%
Freeway/ Expressway	2003 Existing	74	0	14	0	25	3	0	0	24	71	5	1	10	226
	2008 Projected	74	0	14	0	25	3	0	0	28	71	5	1	10	229
	2026 Projected	122	0	14	39	25	3	0	0	28	91	75	1	10	407
	Change (2003-2026)	48	0	0	39	0	0	0	0	4	21	71	0	0	181
	AGR (2003 to 2026)	2.2%	-	0.0%	NA	0.0%	0.0%	-	-	0.6%	1.1%	12.9%	0.0%	0.0%	2.6%
Principal Arterial	2003 Existing	141	64	53	114	40	123	249	0	54	194	210	23	108	1,373
	2008 Projected	161	64	53	114	47	127	249	0	54	194	212	23	110	1,407
	2026 Projected	170	64	57	114	56	134	266	0	54	194	215	23	117	1,464
	Change (2003-2026)	28	0	5	0	17	11	17	0	0	0	5	0	8	91
	AGR (2003 to 2026)	0.8%	0.0%	0.4%	0.0%	1.5%	0.4%	0.3%	-	0.0%	0.0%	0.1%	0.0%	0.3%	0.3%
Minor Arterial	2003 Existing	272	12	214	98	135	146	216	9	132	137	507	25	54	1,958
	2008 Projected	285	12	216	98	135	149	216	9	132	137	534	25	54	2,002
	2026 Projected	286	12	222	98	139	159	217	9	136	137	619	26	54	2,113
	Change (2003-2026)	14	0	7	0	3	13	1	0	4	0	112	1	0	156
	AGR (2003 to 2026)	0.2%	0.0%	0.1%	0.0%	0.1%	0.4%	0.0%	0.0%	0.1%	0.0%	0.9%	0.2%	0.0%	0.3%
Collector	2003 Existing	47	25	21	21	25	28	0	5	7	89	67	4	17	356
	2008 Projected	47	25	21	21	25	28	0	5	7	89	67	4	17	356
	2026 Projected	49	25	28	27	25	28	0	5	7	89	103	4	17	407
	Change (2003-2026)	2	0	7	6	0	0	0	0	1	0	35	0	0	51
	AGR (2003 to 2026)	0.2%	0.0%	1.2%	1.0%	0.0%	0.0%	-	0.0%	0.5%	0.0%	1.9%	0.0%	0.0%	0.6%
TOTAL All Facilities	**2003 Existing**	**663**	**101**	**393**	**234**	**269**	**395**	**637**	**15**	**246**	**516**	**910**	**53**	**234**	**4,666**
	2008 Projected	**697**	**101**	**401**	**234**	**277**	**402**	**637**	**15**	**250**	**516**	**939**	**53**	**235**	**4,756**
	2026 Projected	**757**	**101**	**417**	**278**	**298**	**453**	**671**	**15**	**280**	**540**	**1,133**	**54**	**250**	**5,249**
	Change (2003-2026)	**94**	**0**	**24**	**45**	**29**	**58**	**35**	**0**	**34**	**24**	**223**	**1**	**16**	**583**
	% of Regional Total	**16%**	**0%**	**4%**	**8%**	**5%**	**10%**	**6%**	**0%**	**6%**	**4%**	**38%**	**0%**	**3%**	**100%**
	AGR (2003 to 2026)	**0.6%**	**0.0%**	**0.3%**	**0.8%**	**0.5%**	**0.6%**	**0.2%**	**0.0%**	**0.6%**	**0.2%**	**1.0%**	**0.1%**	**0.3%**	**0.5%**

Table 6 – Expected Growth in CMS Vehicle-Miles of Travel By Facility Type and Locality (2003 Existing to 2026)

Facility Type	24-Hour Vehicle-Miles of Travel	Che	Glo	Hamp	IW	JCC	NN	Nor	Poq	Por	Suf	VaB	Wmb	York	TOTAL
Interstate	2003 Existing	2,008,104	0	1,622,353	0	569,582	1,531,401	2,967,675	0	405,021	308,056	2,032,998	0	647,829	12,093,019
	2008 Projected	2,279,040	0	1,863,890	0	734,800	1,798,260	3,273,290	0	450,000	353,640	2,218,780	0	835,160	13,806,860
	2026 Projected	2,303,610	0	2,012,340	0	907,160	2,267,720	3,027,524	0	575,930	430,460	2,061,160	0	1,004,950	14,590,854
	Change (2003-2026)	295,506	0	389,987	0	337,578	736,319	59,849	0	170,909	122,404	28,162	0	357,121	2,497,835
	AGR (2003 to 2026)	0.6%	-	0.9%	-	2.0%	1.7%	0.1%	-	1.5%	1.5%	0.1%	-	1.9%	0.8%
Freeway/ Expressway	2003 Existing	596,368	0	116,836	0	108,456	9,822	0	0	197,291	590,970	9,341	4,696	49,997	1,683,777
	2008 Projected	684,670	0	130,960	0	130,470	18,900	0	0	307,210	663,090	11,500	5,280	54,960	2,007,040
	2026 Projected	1,474,127	0	149,360	324,528	162,110	21,420	0	0	483,430	968,099	443,922	6,880	87,900	4,121,776
	Change (2003-2026)	877,759	0	32,524	324,528	53,654	11,598	0	0	286,139	377,129	434,581	2,184	37,903	2,437,999
	AGR (2003 to 2026)	4.0%	-	1.1%	NA	1.8%	3.4%	-	-	4.0%	2.2%	18.3%	1.7%	2.5%	4.0%
Principal Arterial	2003 Existing	881,027	466,901	350,649	481,022	244,293	999,463	1,650,029	0	358,883	882,121	1,400,745	104,881	708,874	8,528,888
	2008 Projected	1,006,530	520,790	399,160	596,350	268,220	1,113,370	1,756,240	0	346,770	984,910	1,498,330	112,340	766,530	9,369,540
	2026 Projected	1,152,920	579,290	429,604	694,500	334,790	1,095,230	1,892,580	0	360,720	1,307,380	1,574,530	128,660	844,410	10,394,614
	Change (2003-2026)	271,893	112,389	78,955	213,478	90,497	95,767	242,551	0	1,837	425,259	173,785	23,779	135,536	1,865,726
	AGR (2003 to 2026)	1.2%	0.9%	0.9%	1.6%	1.4%	0.4%	0.6%	-	0.0%	1.7%	0.5%	0.9%	0.8%	0.9%
Minor Arterial	2003 Existing	1,297,393	55,192	965,520	278,184	516,485	1,011,741	935,414	53,799	503,309	396,832	3,475,503	120,556	280,413	9,890,342
	2008 Projected	1,582,258	58,200	1,006,384	304,060	562,700	1,101,400	986,240	60,270	487,270	464,660	3,860,970	130,490	310,530	10,915,432
	2026 Projected	1,901,890	62,800	1,052,591	388,540	651,820	1,219,280	1,078,010	76,450	530,440	722,930	3,997,720	144,890	338,360	12,165,721
	Change (2003-2026)	604,497	7,608	87,071	110,356	135,335	207,539	142,596	22,651	27,131	326,098	522,217	24,334	57,947	2,275,379
	AGR (2003 to 2026)	1.7%	0.6%	0.4%	1.5%	1.0%	0.8%	0.6%	1.5%	0.2%	2.6%	0.6%	0.8%	0.8%	0.9%
Collector	2003 Existing	127,631	81,193	96,926	48,549	109,462	111,175	0	9,956	28,741	51,857	257,434	4,410	34,119	961,452
	2008 Projected	174,925	86,680	108,510	64,150	122,260	127,930	0	13,200	29,280	74,210	291,890	6,720	40,460	1,140,215
	2026 Projected	216,490	97,540	129,010	69,910	136,450	123,970	0	24,180	29,900	138,730	311,940	10,140	60,870	1,349,130
	Change (2003-2026)	88,859	16,347	32,084	21,361	26,988	12,795	0	14,225	1,159	86,873	54,506	5,730	26,751	387,679
	AGR (2003 to 2026)	2.3%	0.8%	1.3%	1.6%	1.0%	0.5%	-	3.9%	0.2%	4.4%	0.8%	3.7%	2.5%	1.5%
TOTAL All Facilities	**2003 Existing**	**4,910,523**	**603,286**	**3,152,285**	**807,755**	**1,548,278**	**3,663,602**	**5,553,118**	**63,755**	**1,493,244**	**2,229,836**	**7,176,021**	**234,544**	**1,721,231**	**33,157,477**
	2008 Projected	**5,727,423**	**665,670**	**3,508,904**	**964,560**	**1,818,450**	**4,159,860**	**6,015,770**	**73,470**	**1,620,530**	**2,540,510**	**7,881,470**	**254,830**	**2,007,640**	**37,239,087**
	2026 Projected	**7,049,037**	**739,630**	**3,772,905**	**1,477,478**	**2,192,330**	**4,727,620**	**5,998,114**	**100,630**	**1,980,420**	**3,567,599**	**8,389,272**	**290,570**	**2,336,490**	**42,622,095**
	Change (2003-2026)	**2,138,514**	**136,344**	**620,620**	**669,723**	**644,052**	**1,064,018**	**444,996**	**36,875**	**487,176**	**1,337,763**	**1,213,251**	**56,026**	**615,259**	**9,464,618**
	% of Regional Total	**23%**	**1%**	**7%**	**7%**	**7%**	**11%**	**5%**	**0%**	**5%**	**14%**	**13%**	**1%**	**7%**	**100%**
	AGR (2003 to 2026)	**1.6%**	**0.9%**	**0.8%**	**2.7%**	**1.5%**	**1.1%**	**0.3%**	**2.0%**	**1.2%**	**2.1%**	**0.7%**	**0.9%**	**1.3%**	**1.1%**

HAMPTON ROADS CONGESTION ANALYSIS

The Hampton Roads' CMS includes a comprehensive regional roadway network consisting of all interstates, expressways, principal and minor arterials as well as selected collectors. For this study, an extensive level of service (LOS) analysis was performed on all CMS roadways for morning and afternoon peak hour travel conditions for the 2003 Existing, Projected 2008, and Projected 2026 years. The 2008 and 2026 roadway networks are based on the programmed and planned improvements included in the *Hampton Roads Transportation Improvement Program (TIP FY 05-08)* and the *Hampton Roads 2026 Regional Transportation Plan*. LOS analyses for 2003 Existing and 2008 were calculated using LOS software[3] based upon the methodologies as described in the *2000 Highway Capacity Manual (HCM)*. The 2026 congestion levels were determined from generalized planning level thresholds by roadway class as determined in the 2026 Regional Transportation Plan. The LOS results will enable the region to identify corridors that are experiencing severe congestion levels today and into the future.

Table 7 – Level of Service Descriptions

		Congestion Level
Level A	High-speed, smooth flow, good maneuverability	Low
Level B	Lower speed and maneuverability than A, good flow, little congestion	Low
Level C	Lower speed than B, stable flow, little congestion, stable operations, maneuverability affected by other vehicles, acceptable delays	Moderate
Level D	Lower speeds than previous levels, borderline unstable traffic flow, maneuverability severely restricted due to congestion, some delays	Moderate
Level E	Extremely unstable traffic flow, traffic volume at or near capacity, significant congestion, momentary stoppages, unacceptable conditions	Severe
Level F	Heavy congestion and delays, stop and go, traffic in excess of capacity, unacceptable conditions	Severe

Defining Level of Service

Level of Service A is considered the best operating condition of traffic flow and Level of Service F is considered the worst operating condition of traffic flow. Levels of Service A, B, C, and D are considered acceptable. Level of Service D (Moderate Congestion Level), despite being an acceptable level, is the "warning" level condition where favorable traffic conditions are on the verge of becoming unfavorable. All roadway segments that are operating at LOS D are highlighted in yellow in upcoming tables, maps, and figures in this report. Levels of Service E and F (Severe Congestion Level) are considered unacceptable or failing and are highlighted in red in upcoming tables, maps, and figures. Some roadway segments operating at LOS E or F may not be the result of capacity deficiency; other factors, such as high number of signalized intersections per mile, high peak hour factors, low speeds, non-optimal signal timings, and lack of signal coordination may have contributed to unacceptable levels on these roadways.

Level of Service Methodology

Three levels of analysis are generally used in computing levels of service: (1) Generalized Planning (2) Conceptual Planning, and (3) Operational Analysis. Generalized planning uses generalized tables with many default values to calculate "in the ballpark" levels of service. The CMS study uses a conceptual planning level analysis for the 2003 Existing and 2008 travel conditions and is best suited for obtaining a solid determination of the LOS of a facility. Conceptual planning is more detailed than generalized planning, however it does not involve comprehensive operational analysis. An operational analysis may include factors such as intersection signal timing or turning movements into and out of driveways along a facility. The 2026 congestion levels (PM peak hour only) were determined as a part of the 2026 Regional Transportation Plan, which utilized a generalized planning level. In this methodology, 2026 congestion levels were determined from generalized planning level thresholds (volume to capacity ratios) to calculate "in the ballpark"

[3] FDOT LOS Software: FREEPLAN (version 1.1.0), ARTPLAN (version 5.2.0), HIGHPLAN (version 1.2.0), released July 2004.

results. Some 2026 congestion levels, however, were adjusted slightly according to the detailed data that became available from the conceptual planning level analysis for the 2003 Existing and 2008 travel conditions. The conceptual planning and generalized planning levels are most appropriate for this type of study because a regionwide analysis was performed for many roadways. A corridor study, for example, would use the operational level analysis.

For this CMS update, the latest LOS software based upon the methodologies described in the 2000 Highway Capacity Manual (HCM) was used for the 2003 Existing and 2008 LOS analysis; the last CMS update used a combination of methodologies from the 1997 HCM for arterials and collectors and the 2000 HCM for interstates and freeways. Levels of service were calculated along the mainline of each facility for various segment lengths and not at each intersection. Levels of service for interstates, expressways, principal and minor arterials, and selected collectors were produced using roadway, traffic, and signal control variables for each roadway segment. These levels of service can be quite different than intersection levels of service along those roadways and should not be substituted.

The latest LOS software allows levels of service to be determined for each direction for all Interstate and Freeway/Expressway (free-flow) facilities; prior versions (also the last CMS update) only provided a LOS for both directions combined. The 2026 congestion levels were determined using a generalized planning level methodology (not the LOS software) and only provided a LOS for both directions combined. All other CMS roadways (signalized and rural) were analyzed for both directions combined with the current LOS software.

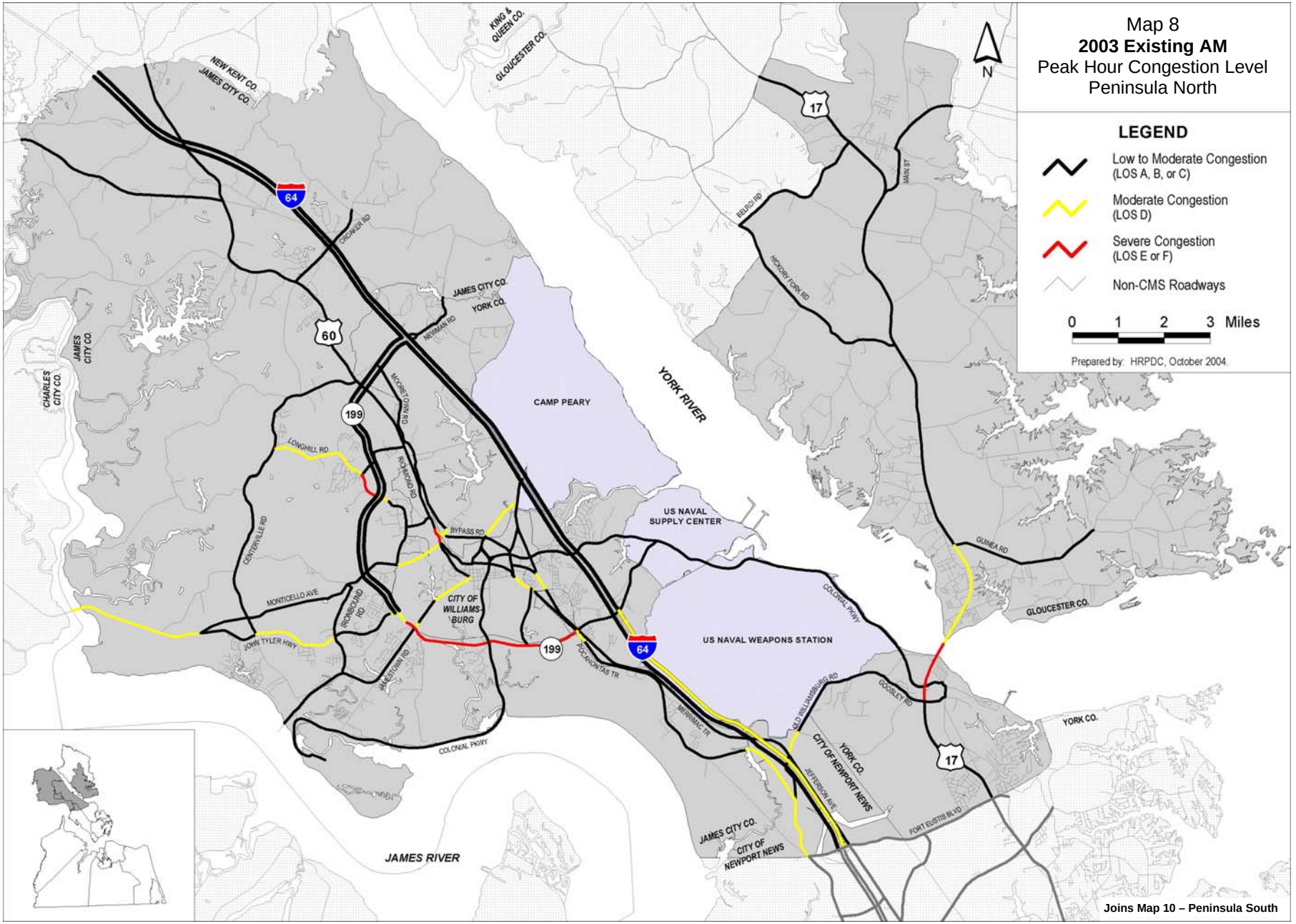
The LOS software used in this study does not have the ability to model delays associated with special conditions, such as drawbridge openings. Levels of service for roadways with drawbridges could be significantly worse than the results indicate especially when openings occur during peak hours.

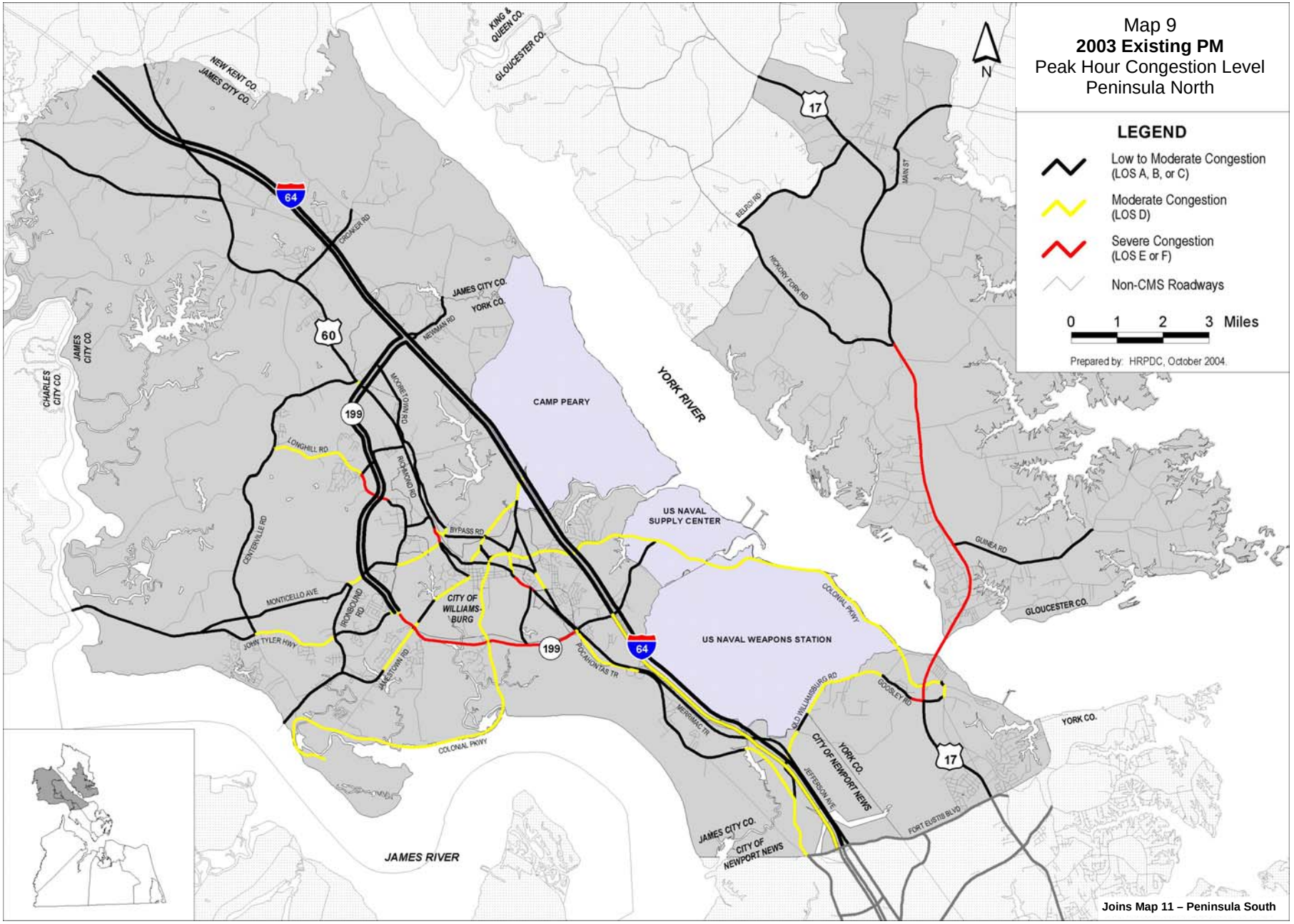
Level of Service Results

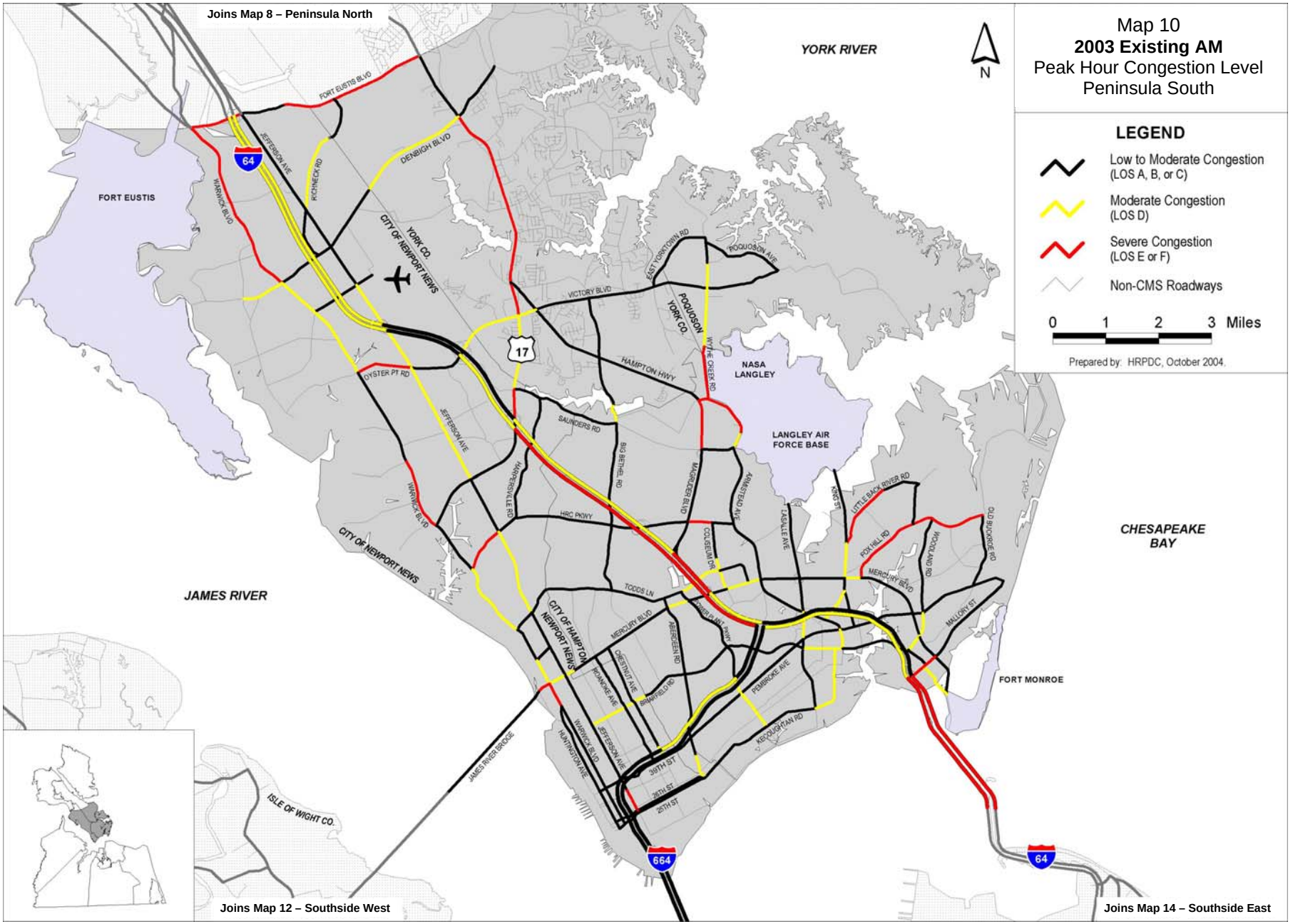
Levels of service are listed in alphabetical order by jurisdiction for both morning and afternoon peak hours for all roadway segments in the CMS for the 2003 Existing, 2008, and 2026 travel conditions in **Appendix C (Interstates and Freeways/Expressways)** and **Appendix D (Arterials and Collectors)** in the accompanying technical appendix document. Roadway length (miles), existing ADTs, projected 2008 and 2026 ADTs, 2000 lanes, 2003 Existing lanes, and future 2008, and 2026 lanes are also provided in the tables in Appendices C and D for reference. A summary of the congestion analysis results is provided on page 61.

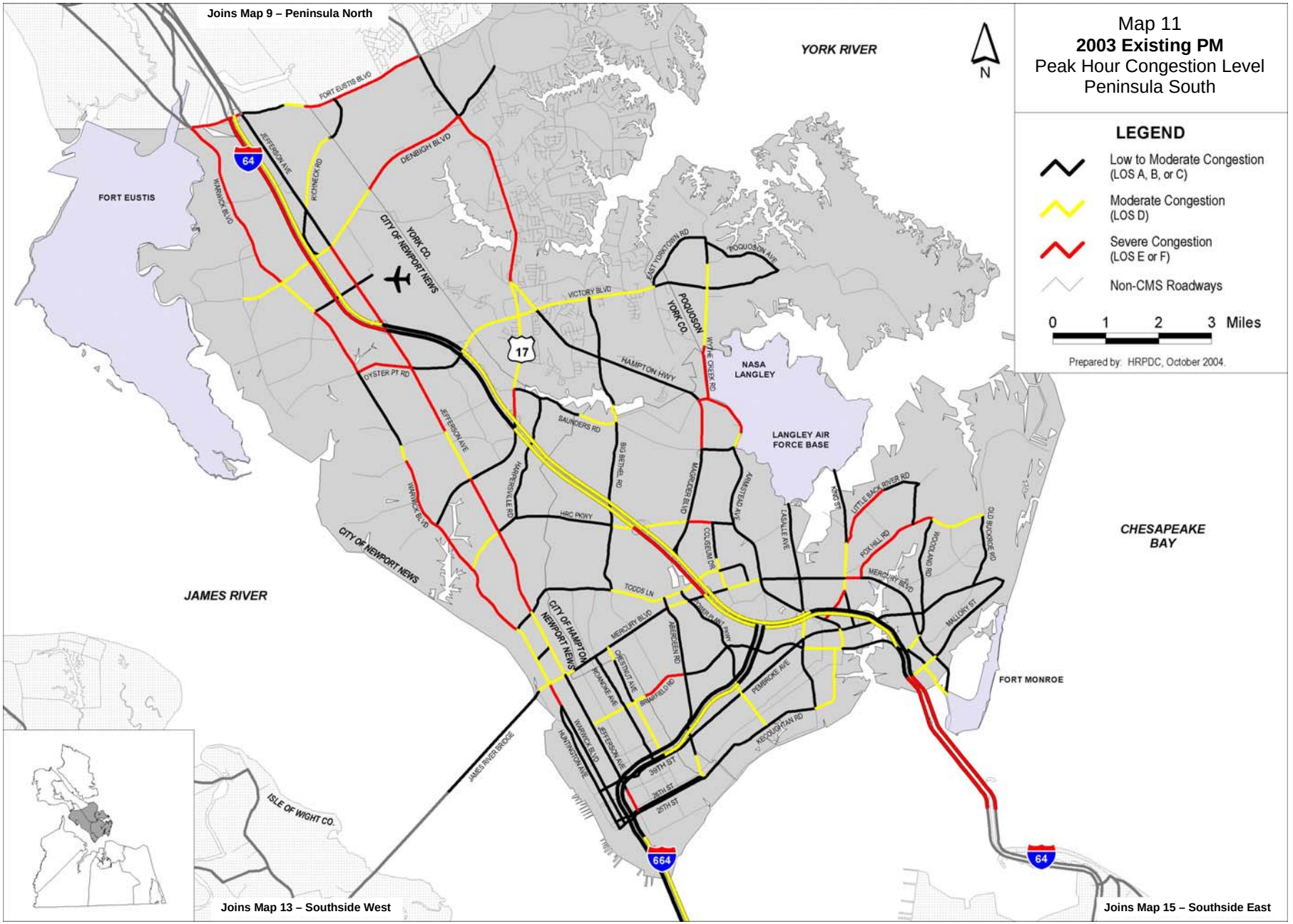
A color scheme is used in these tables to quickly identify roadways that are operating at unacceptable levels of service, roadways that are on the verge of failing, and historical and future roadway capacity improvements. Level of Service E and F (severe congestion) are colored in red and Level of Service D (moderate congestion) is colored in yellow. Roadways that are programmed for capacity improvements by 2008 are colored in dark blue and those that are planned for improvements by 2026 are highlighted in light blue. In addition, the 2000 lanes are provided for reference and where any improvements have been made to the CMS network since the previous CMS update, those projects are shown in purple in the 2003 Existing lanes column.

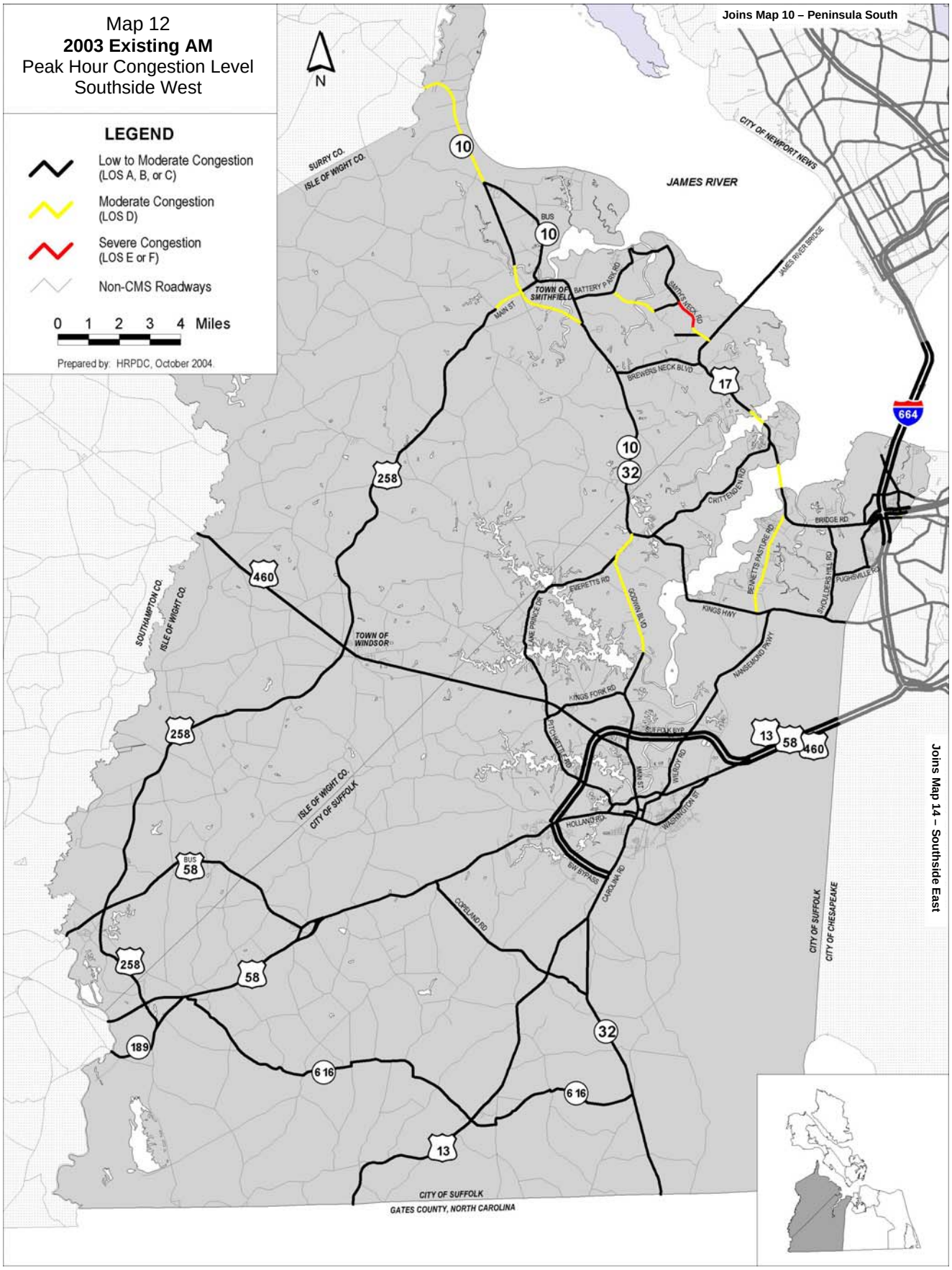
Maps 8 to 32 on pages 36 to 60, display the 2003 Existing, 2008, and 2026 Levels of Service for the morning and afternoon peak hours.

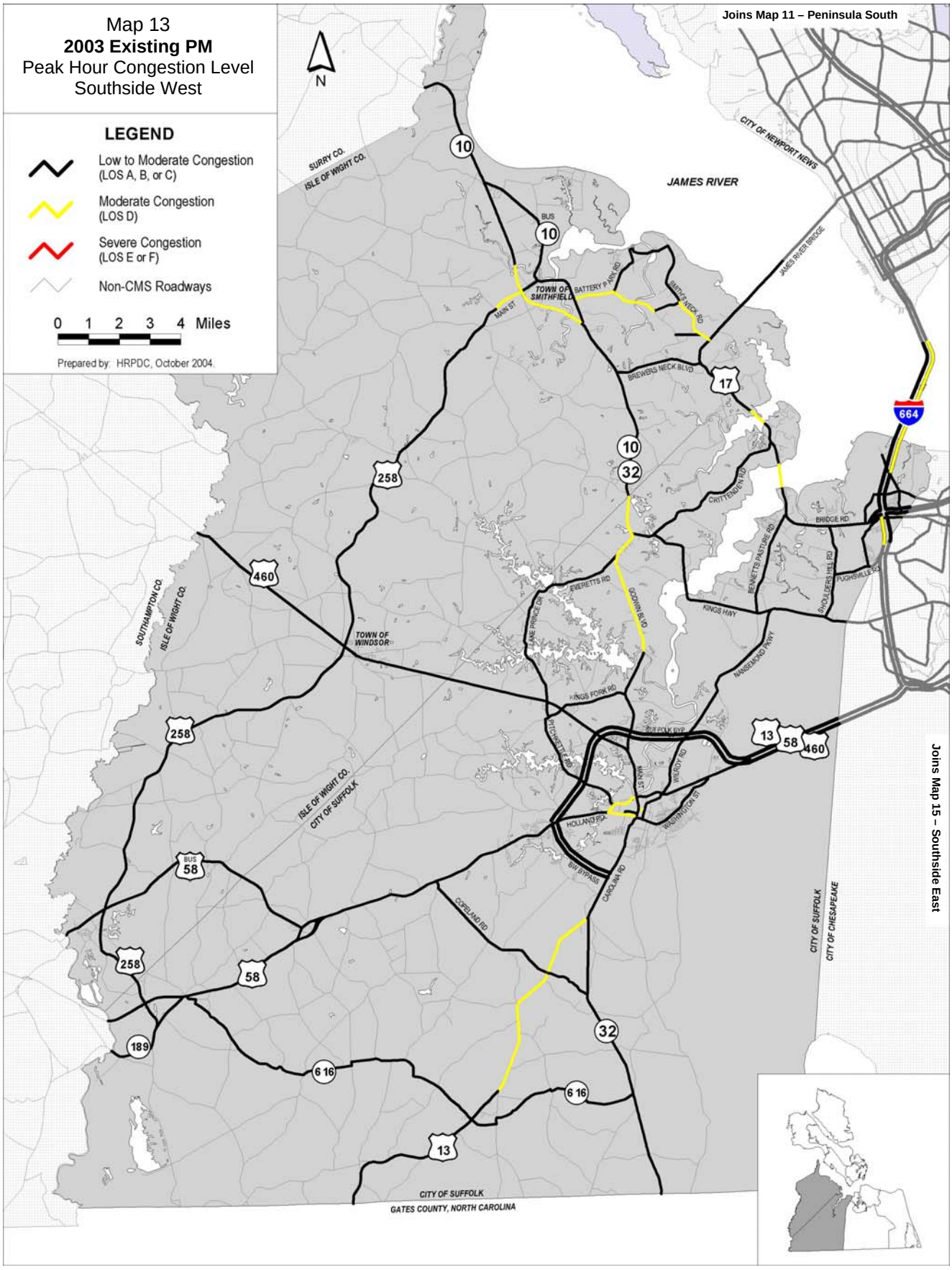

Map 8
2003 Existing AM
Peak Hour Congestion Level
Peninsula North
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 Miles
Prepared by: HRPDC, October 2004.
N
NEW KENT CO.
JAMES CITY CO.
KING & QUEEN CO.
GLOUCESTER CO.
CHARLES CITY CO.
JAMES CITY CO.
YORK CO.
CAMP PEARY
YORK RIVER
US NAVAL SUPPLY CENTER
US NAVAL WEAPONS STATION
CITY OF WILLIAMSBURG
CITY OF NEWPORT NEWS
JAMES RIVER
64
60
199
17
CROAKER RD
NETTMAN RD
LONGHILL RD
RICHMOND RD
BYPASS RD
CENTERVILLE RD
MONTICELLO AVE.
JOHN TYLER HWY
IRONBOUND RD
JAMESTOWN RD
COLONIAL PKWY
POCAHONTAS TR
MERRIMAC TR
COLONIAL PKWY
OLD WILLIAMSBURG RD
GOOSLEY RD
JEFFERSON AVE
FORT EUSTIS BLVD
GUINEA RD
HICKORY FORK RD
EELPOT RD
MAIN ST
Joins Map 10 – Peninsula South


Map 9
2003 Existing PM
Peak Hour Congestion Level
Peninsula North
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 Miles
Prepared by: HRPDC, October 2004.
N
NEW KENT CO.
JAMES CITY CO.
KING & QUEEN CO.
GLOUCESTER CO.
CHARLES CITY CO.
JAMES CITY CO.
YORK CO.
CAMP PEARY
YORK RIVER
US NAVAL SUPPLY CENTER
US NAVAL WEAPONS STATION
CITY OF WILLIAMSBURG
CITY OF NEWPORT NEWS
JAMES RIVER
64
60
199
17
CROAKER RD
NEWMAN RD
MCGOBLETOWN RD
LONGHILL RD
RICHMOND RD
CENTERVILLE RD
BYPASS RD
MONTICELLO AVE
IRONBOUND RD
JOHN TYLER HWY
JAMESTOWN RD
COLONIAL PKWY
POCAHONTAS TR
MERRIMAC TR
OLD WILLIAMSBURG RD
GOODLEY RD
JEFFERSON AVE
FORT EUSTIS BLVD
BELROI RD
HICKORY FORK RD
MAIN ST
GUINEA RD
GLOUCESTER CO.
YORK CO.
JAMES CITY CO.
CITY OF NEWPORT NEWS
Joins Map 11 – Peninsula South


Joins Map 8 – Peninsula North
YORK RIVER
N
Map 10
2003 Existing AM
Peak Hour Congestion Level
Peninsula South
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 Miles
Prepared by: HRPDC, October 2004.
FORT EUSTIS
FORT EUSTIS BLVD
JEFFERSON AVE
HARWICK BLVD
KICHNECK RD
DENBIGH BLVD
64
CITY OF NEWPORT NEWS
YORK CO.
VICTORY BLVD
EAST YORKTOWN RD
POQUOSON AVE
POQUOSON
YORK CO.
WYTHE CREEK RD
17
HAMPTON HWY
NASA LANGLEY
LANGLEY AIR FORCE BASE
OYSTER PT RD
JEFFERSON AVE
SAUNDERS RD
BIG BETHEL RD
MARSHBERGER BLVD
HAMPTON AVE
KING ST
LITTLE BACK RIVER RD
OLD BUCKROE RD
FOX HILL RD
MOORE AND RD
MERCURY BLVD
MALLORY ST
CHESAPEAKE BAY
WARWICK BLVD
HRC PKWY
COLISEUM DR
TASKILLE AVE
CITY OF NEWPORT NEWS
JAMES RIVER
TODDS LN
CITY OF HAMPTON
NEWPORT NEWS
MERCURY BLVD
RIVER PARK PKWY
REGISTER RD
CHESTNUT AVE
ROANOKE AVE
BRIDGEFIELD RD
PEMBROKE AVE
KECOUGHTAN RD
FORT MONROE
WARWICK BLVD
HUNTINGTON AVE
JEFFERSON AVE
30TH ST
26TH ST
25TH ST
JAMES RIVER BRIDGE
ISLE OF WIGHT CO.
664
64
Joins Map 12 – Southside West
Joins Map 14 – Southside East


Joins Map 9 – Peninsula North
YORK RIVER
N
Map 11
2003 Existing PM
Peak Hour Congestion Level
Peninsula South
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 Miles
Prepared by: HRPDC, October 2004.
FORT EUSTIS
FORT EUSTIS BLVD
JEFFERSON AVE
HARWICK BLVD
KICHECK RD
DENBIGH BLVD
64
CITY OF NEWPORT NEWS
YORK CO.
VICTORY BLVD
EAST YORKTOWN RD
POQUOSON AVE
POQUOSON
YORK CO.
WYTHE CREEK RD
17
HAMPTON HWY
NASA LANGLEY
LANGLEY AIR FORCE BASE
OYSTER PT RD
JEFFERSON AVE
SAUNDERS RD
BIG BETHEL RD
MARSHBERGER BLVD
HAMPTON AVE
ARMISTEAD AVE
TASKILLE AVE
KING ST
LITTLE BACK RIVER RD
OLD BUCKROE RD
WOODLAND RD
FOX HILL RD
MERCURY BLVD
MALLORY ST
CHESAPEAKE BAY
WARWICK BLVD
CITY OF NEWPORT NEWS
HRC PKWY
COLISEUM DR
TODDS LN
JAMES RIVER
CITY OF HAMPTON
NEWPORT NEWS
MERCURY BLVD
RIVER PARK PKWY
RESERVOIR RD
CHESTNUT AVE
ROANOKE AVE
RIDGEFIELD RD
PEMBROKE AVE
KECOUGHTAN RD
WARWICK BLVD
HUNTINGTON AVE
JEFFERSON AVE
30TH ST
26TH ST
25TH ST
664
64
FORT MONROE
JAMES RIVER BRIDGE
ISLE OF WIGHT CO.
Joins Map 13 – Southside West
Joins Map 15 – Southside East


Map 12
2003 Existing AM
Peak Hour Congestion Level
Southside West
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 4 Miles
Prepared by: HRPDC, October 2004.
N
Joins Map 10 – Peninsula South
Joins Map 14 – Southside East
JAMES RIVER
CITY OF NEWPORT NEWS
SURRY CO.
ISLE OF WIGHT CO.
SOUTHAMPTON CO.
TOWN OF SMITHFIELD
TOWN OF WINDSOR
CITY OF SUFFOLK
GATES COUNTY, NORTH CAROLINA
CITY OF CHESAPEAKE
JAMES RIVER BRIDGE
BATTERY PARK RD
BREWERS NECK BLVD
MAIN ST
CRITTENDEN RD
BRIDGE RD
BENNETTS PASTURE RD
PUGHSVILLE RD
KINGS HWY
EVERETTS RD
GODWIN BLVD
LAKE PRINCE DR
KINGS FORK RD
NANSEMOND PKWY
SUFFOLK BYP
WILROY RD
MAIN ST
WASHINGTON ST
HOLLAND RD
BW BYPASS
CAROLINA RD
COPELAND RD
10
BUS 10
17
664
32
258
460
58
BUS 58
13
189
6 16


Map 13
2003 Existing PM
Peak Hour Congestion Level
Southside West
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 4 Miles
Prepared by: HRPDC, October 2004.
N
Joins Map 11 – Peninsula South
Joins Map 15 – Southside East
JAMES RIVER
CITY OF NEWPORT NEWS
SURRY CO.
ISLE OF WIGHT CO.
SOUTHAMPTON CO.
TOWN OF SMITHFIELD
TOWN OF WINDSOR
CITY OF SUFFOLK
CITY OF CHESAPEAKE
GATES COUNTY, NORTH CAROLINA
MAIN ST
BATTERY PARK BLVD
BREWERS NECK BLVD
JAMES RIVER BRIDGE
CRITTENDEN RD
BRIDGE RD
BENNETTS PASTURE RD
SHOULDERS HILL RD
FUQUAY RD
EVERETTS RD
GODWIN BLVD
KINGS HWY
LAKE PRINCE DR
KINGS FORK RD
NANSEMOND PKWY
SUFFOLK BYP
PITCHKETTLE RD
WILROY RD
WASHINGTON ST
HOLLAND RD
BW BYPASS
CAROLINA RD
COPELAND RD
10
17
664
32
258
460
58
13
16
189
BUS

Map 14
2003 Existing AM
Peak Hour Congestion Level
Southside East

LEGEND

- Low to Moderate Congestion (LOS A, B, or C)
- Moderate Congestion (LOS D)
- Severe Congestion (LOS E or F)
- Non-CMS Roadways

0 1 2 3 4 Miles

Prepared by: HRPDC, October 2004.

Joins Map 10 – Peninsula South

Joins Map 12 – Southside West

For further detail see Map 16 - Southside Downtown

See Inset to the left

See Inset to the left

Inset

CITY OF CHESAPEAKE
CURRITUCK COUNTY, NC

0 2 4 6 Miles

Map 15
2003 Existing PM
Peak Hour Congestion Level
Southside East

LEGEND

- Low to Moderate Congestion (LOS A, B, or C)
- Moderate Congestion (LOS D)
- Severe Congestion (LOS E or F)
- Non-CMS Roadways

0 1 2 3 4 Miles

Prepared by: HRPDC, October 2004.

Joins Map 11 – Peninsula South

Joins Map 13 – Southside West

For further detail see Map 17 - Southside Downtown

JAMES RIVER

CHESAPEAKE BAY

ATLANTIC OCEAN

NAS NORFOLK

CRANEY ISLAND

LITTLE CREEK AMPHIBIOUS BASE

FORT STORY

NAS OCEANA

CAMP PENDLETON

CITY OF NORFOLK
CITY OF VA BEACH

CITY OF SUFFOLK
CITY OF CHESAPEAKE

CITY OF PORTSMOUTH
CITY OF CHESAPEAKE

CITY OF VIRGINIA BEACH
CITY OF CHESAPEAKE

CITY OF VA BEACH
CITY OF CHESAPEAKE

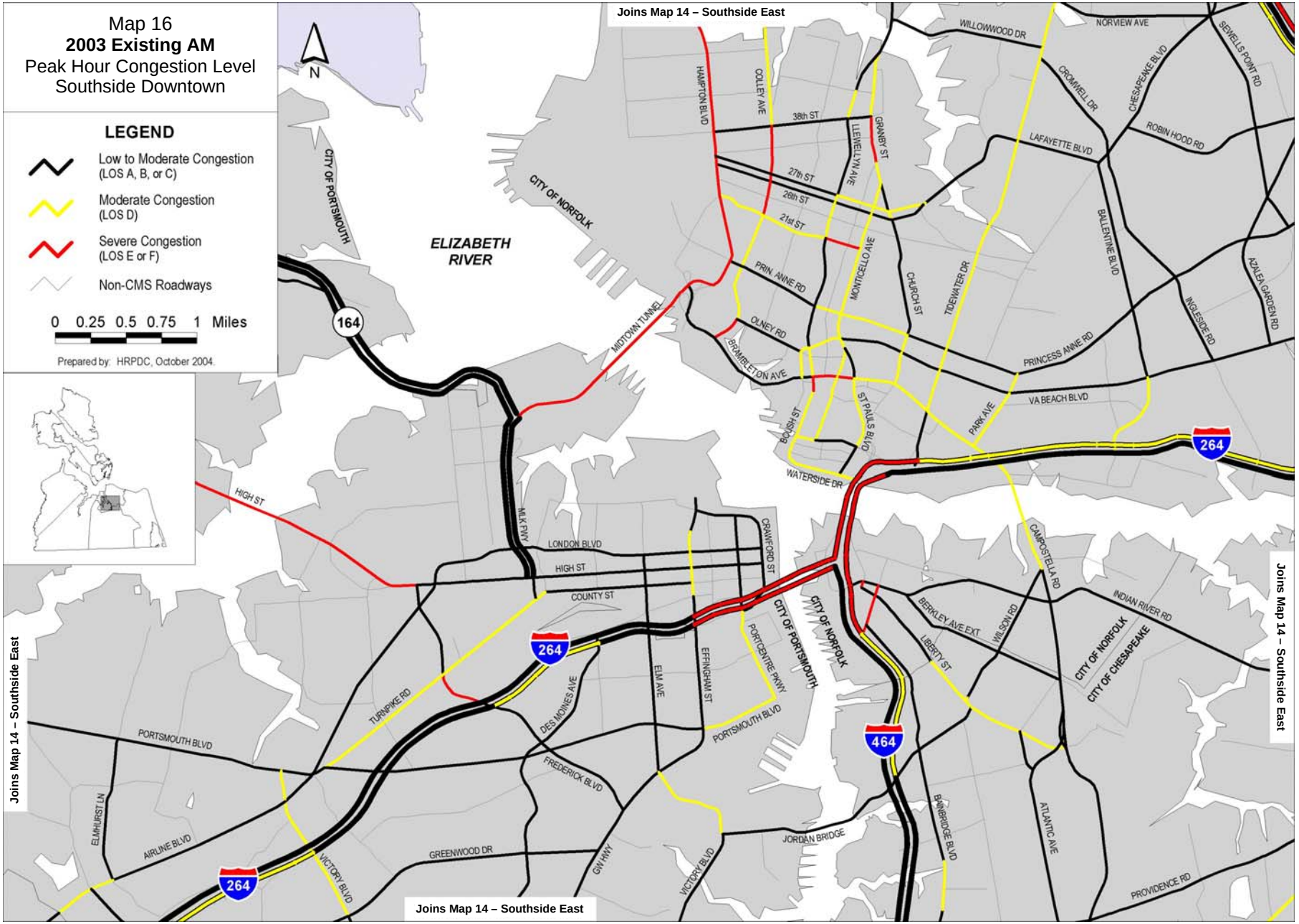
Inset

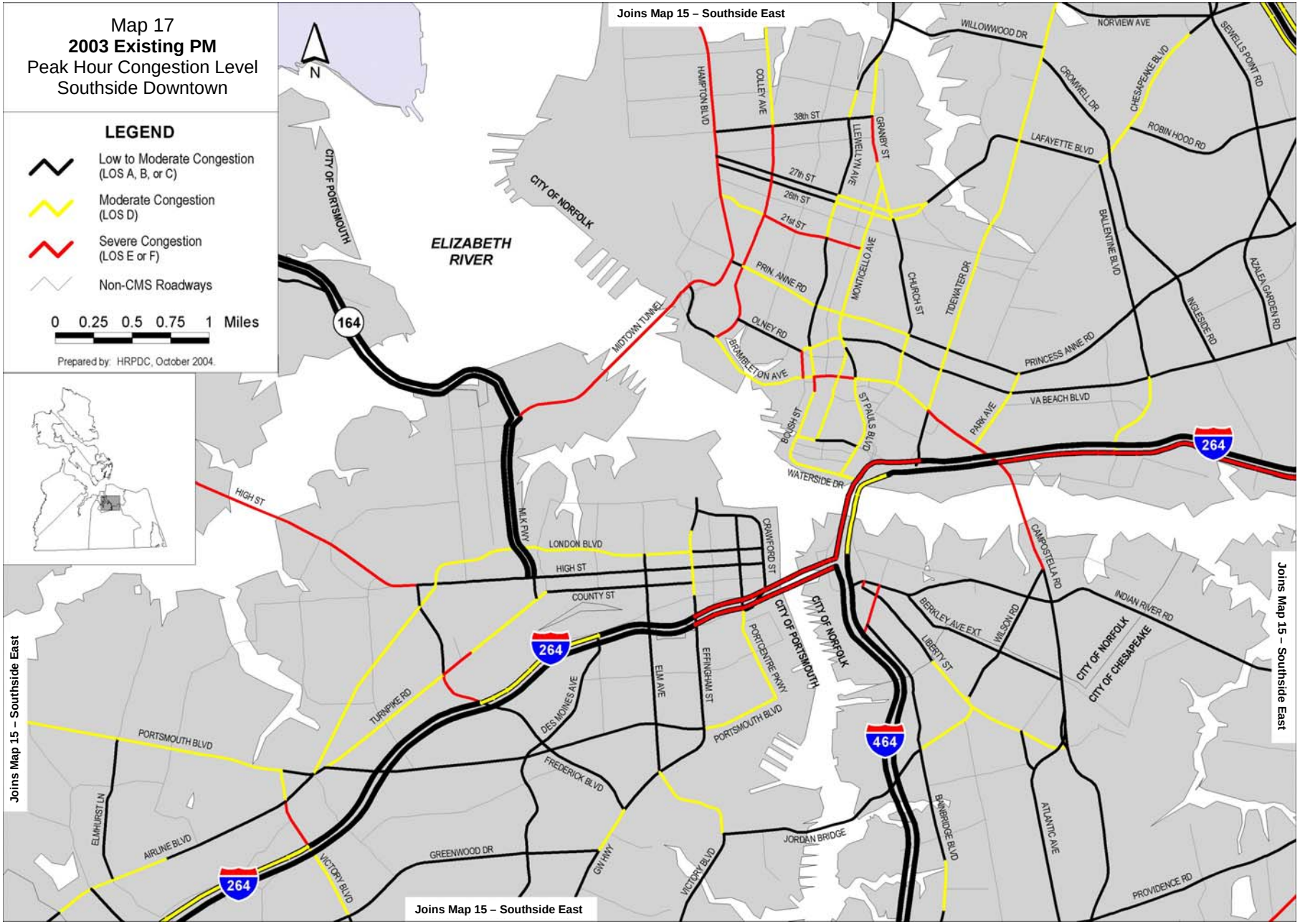
CITY OF CHESAPEAKE
CURRITUCK COUNTY, NC

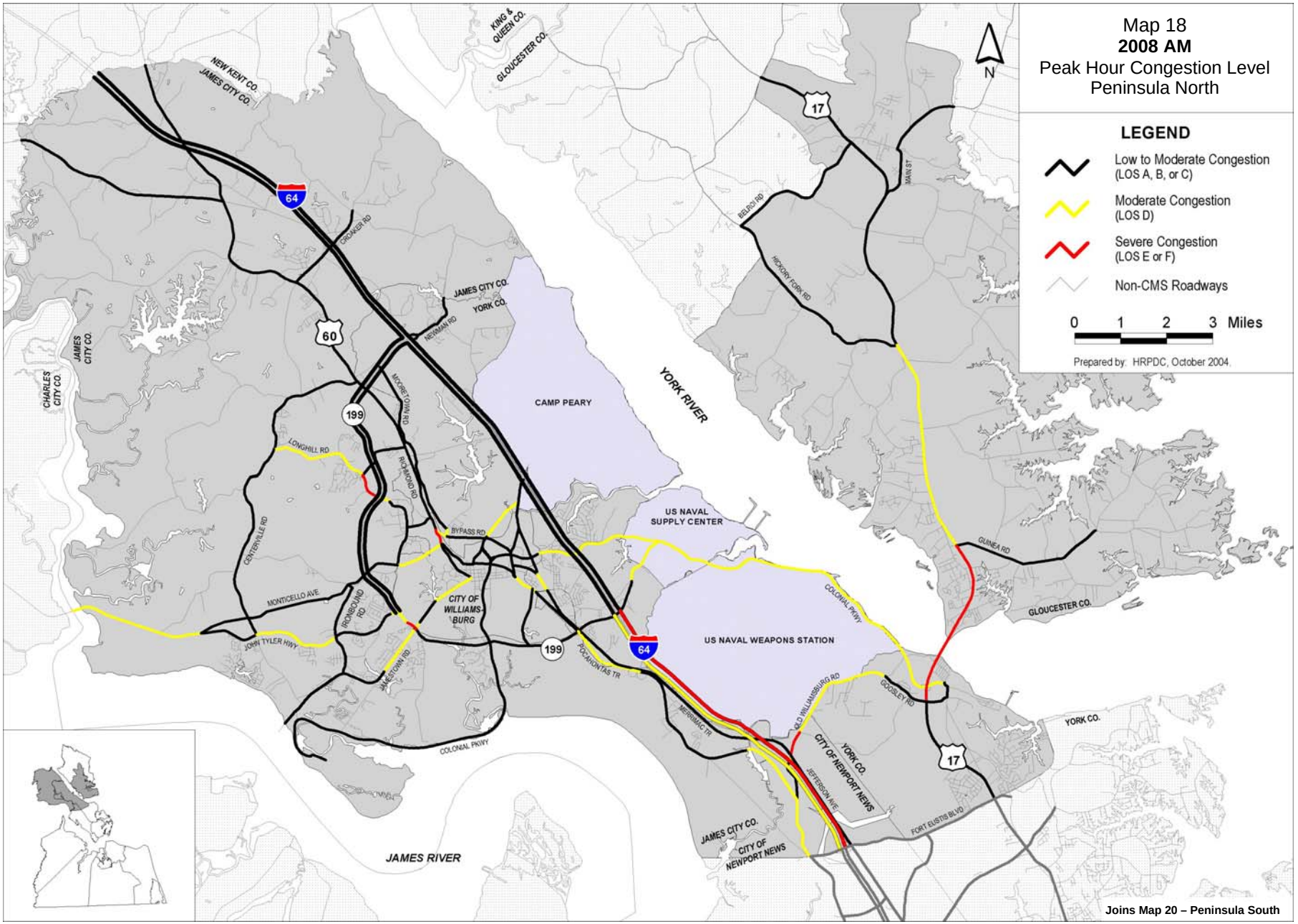
0 2 4 6 Miles

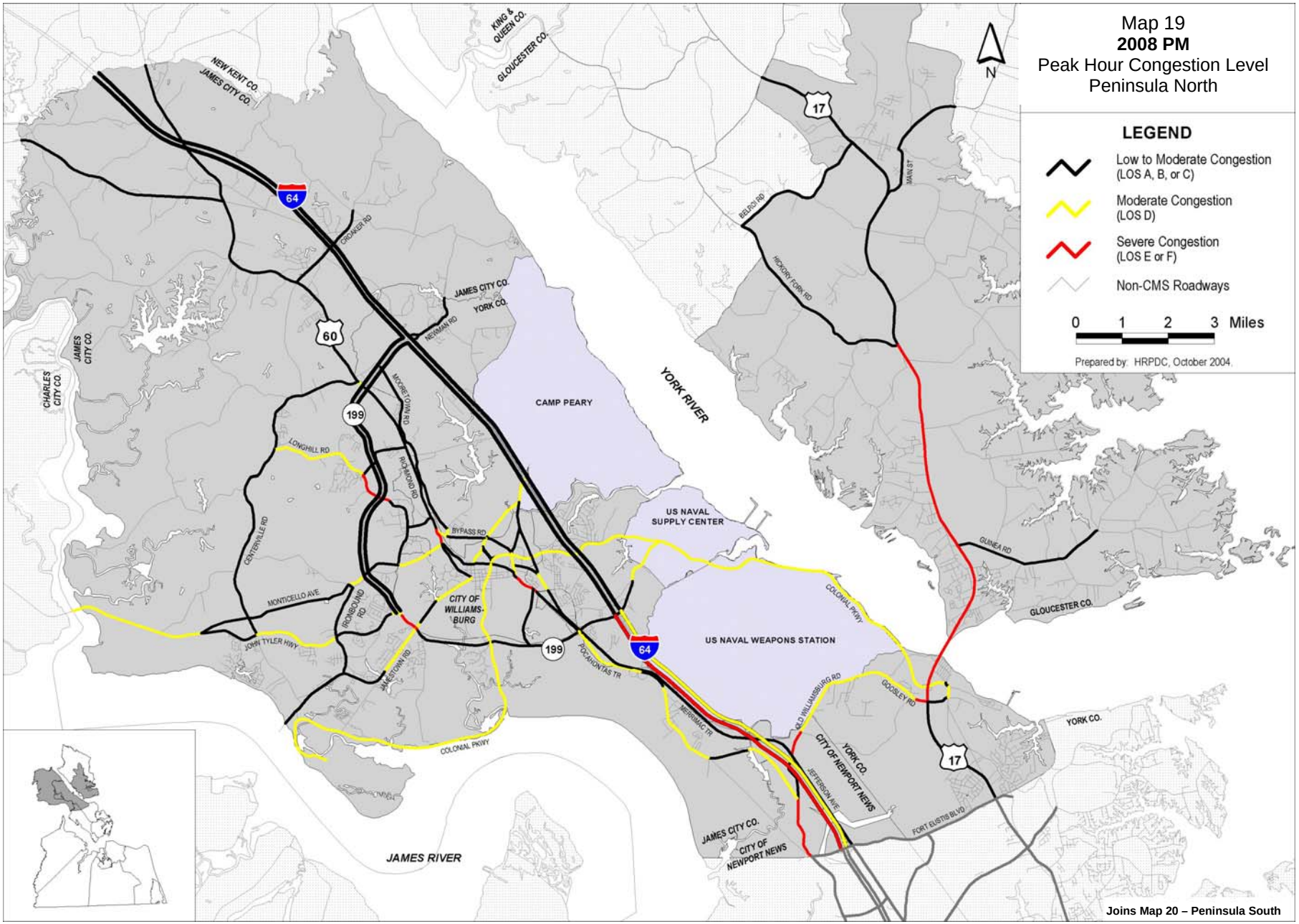
See Inset to the left

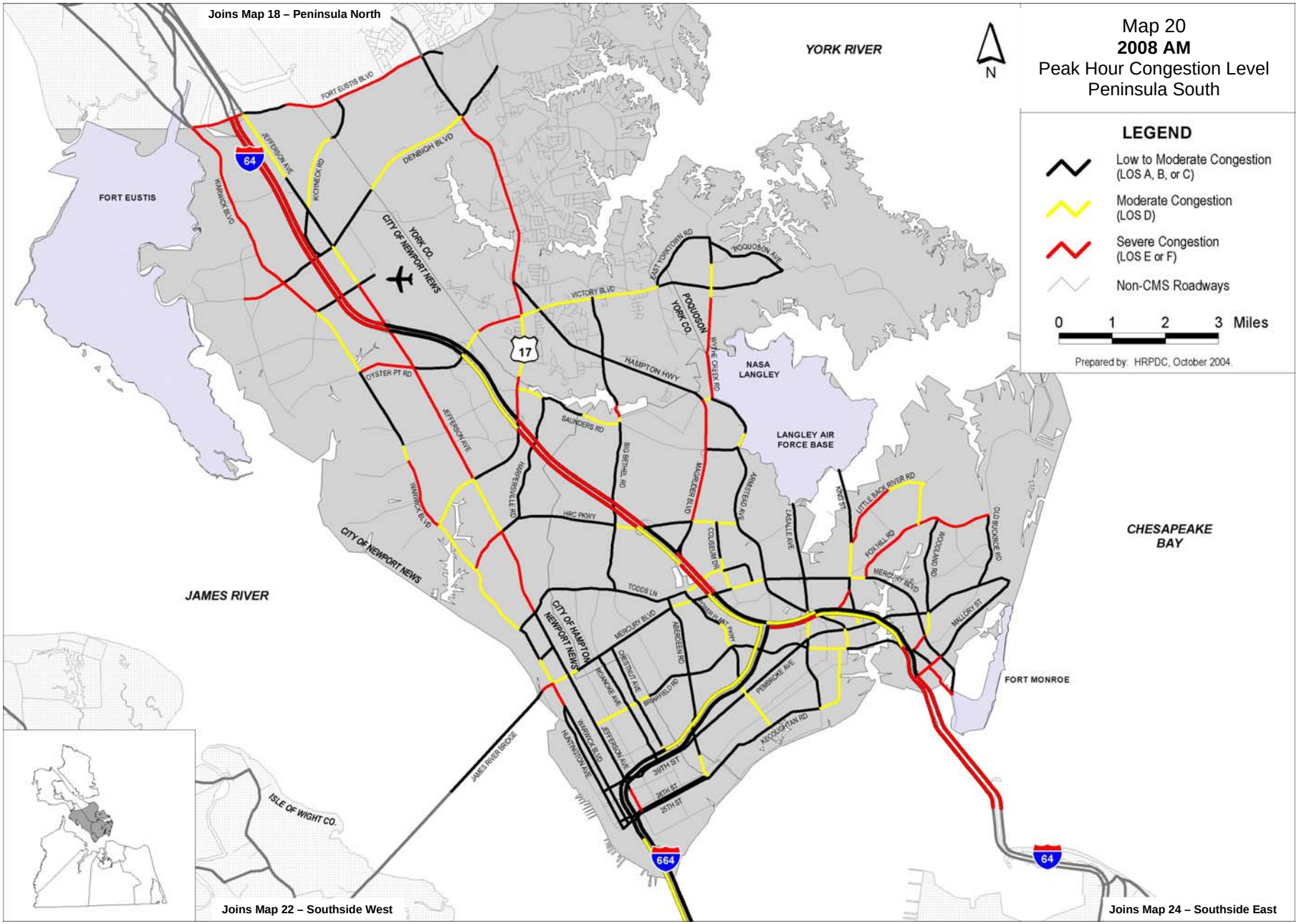
See Inset to the left

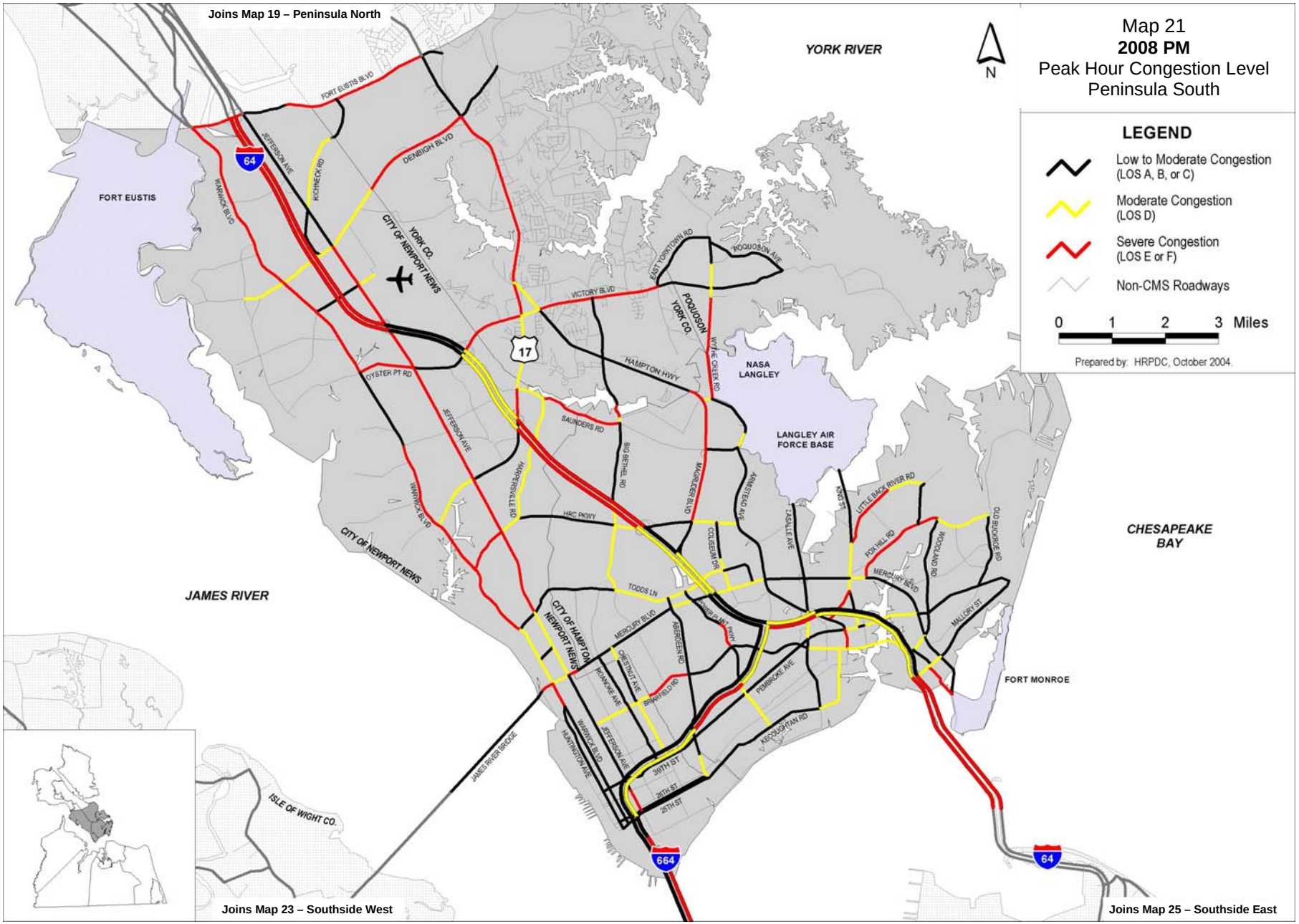

Map 16
2003 Existing AM
Peak Hour Congestion Level
Southside Downtown
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 0.25 0.5 0.75 1 Miles
Prepared by: HRPDC, October 2004.
N
Joins Map 14 – Southside East
CITY OF PORTSMOUTH
CITY OF NORFOLK
ELIZABETH RIVER
HAMPTON BLVD
COLLEY AVE
38th ST
LLEWELLYN AVE
GRANBY ST
27th ST
26th ST
21st ST
PRIN. ANNE RD
OLNEY RD
BRAMBLETON AVE
MONTICELLO AVE
CHURCH ST
TIDEWATER DR
BALLENTINE BLVD
WILLOWWOOD DR
NORVIEW AVE
CROMWELL DR
CHESAPEAKE BLVD
SEWELLS POINT RD
LAFAYETTE BLVD
ROBIN HOOD RD
AZALEA GARDEN RD
INGLESIDE RD
PRINCESS ANNE RD
VA BEACH BLVD
PARK AVE
ST PAULS BLVD
BOUSH ST
WATERSIDE DR
MIDTOWN TUNNEL
164
264
HIGH ST
MLK PKWY
LONDON BLVD
COUNTY ST
CRAWFORD ST
CAMPOSTELLA RD
INDIAN RIVER RD
BERKLEY AVE EXT
WILSON RD
LIBERTY ST
CITY OF CHESAPEAKE
PORTCENTRE PKWY
EFFINGHAM ST
ELM AVE
DES MOINES AVE
TURNPIKE RD
PORTSMOUTH BLVD
FREDERICK BLVD
464
BAINBRIDGE BLVD
ATLANTIC AVE
JORDAN BRIDGE
PROVIDENCE RD
ELMHURST LN
AIRLINE BLVD
GREENWOOD DR
VICTORY BLVD
GW HWY
Joins Map 14 – Southside East
Joins Map 14 – Southside East
Joins Map 14 – Southside East

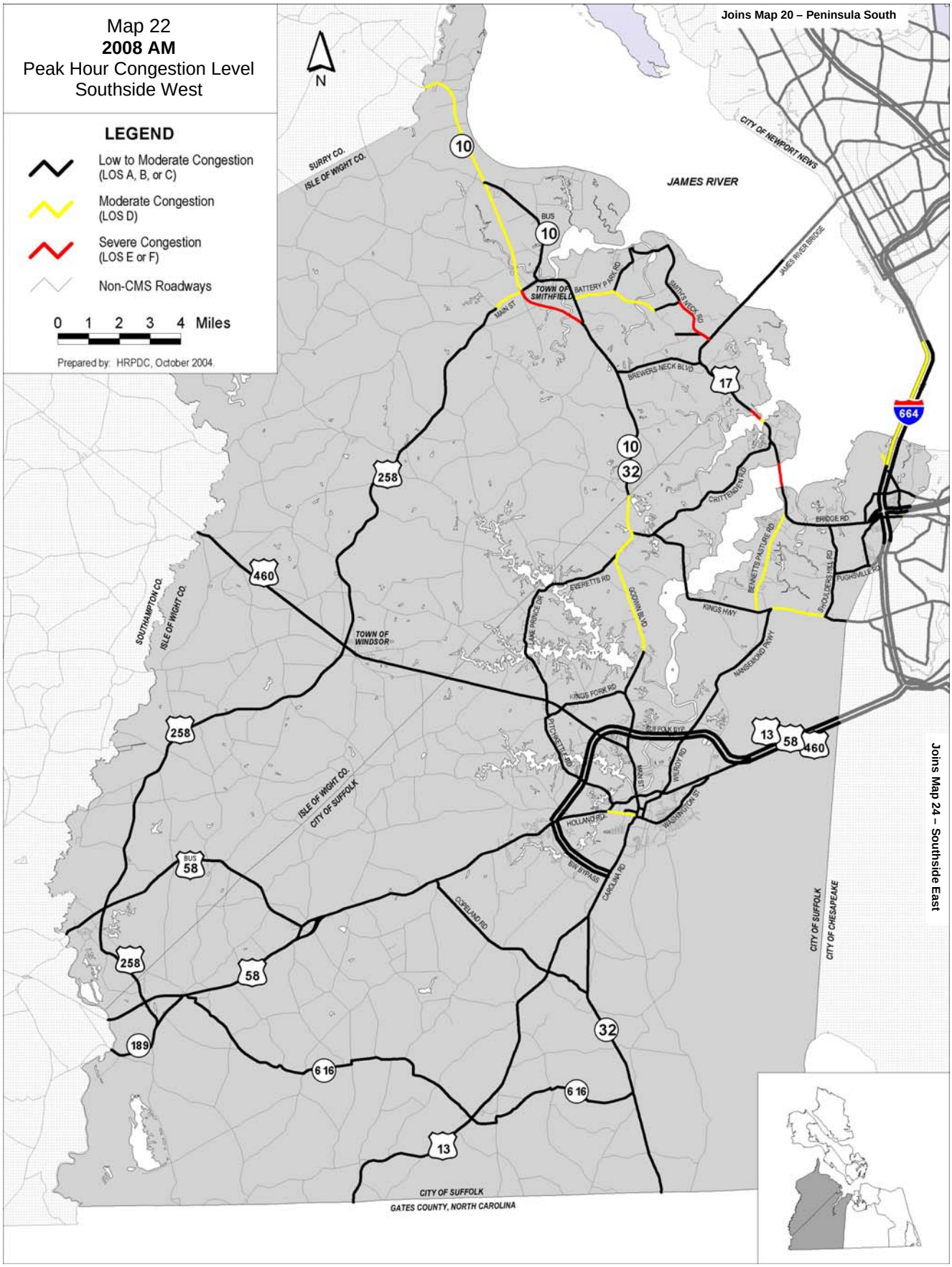

Map 17
2003 Existing PM
Peak Hour Congestion Level
Southside Downtown
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 0.25 0.5 0.75 1 Miles
Prepared by: HRPDC, October 2004.
N
Joins Map 15 – Southside East
CITY OF PORTSMOUTH
CITY OF NORFOLK
ELIZABETH RIVER
HAMPTON BLVD
COLLEY AVE
38th ST
LLEWELLYN AVE
GRANBY ST
27th ST
26th ST
21st ST
PRIN. ANNE RD
OLNEY RD
BRAMBLETON AVE
MONTICELLO AVE
CHURCH ST
TIDEWATER DR
WILLOWWOOD DR
NORVIEW AVE
CROMWELL DR
CHESAPEAKE BLVD
SEWELLS POINT RD
LAFAYETTE BLVD
ROBIN HOOD RD
BALLENTINE BLVD
INGLESIDE RD
AZALEA GARDEN RD
PRINCESS ANNE RD
VA BEACH BLVD
PARK AVE
ST PAULS BLVD
BOUSH ST
WATERSIDE DR
MIDTOWN TUNNEL
164
264
HIGH ST
MLK PKWY
LONDON BLVD
COUNTY ST
CRAWFORD ST
CAMPOSTELLA RD
INDIAN RIVER RD
BERKLEY AVE EXT
WILSON RD
LIBERTY ST
CITY OF CHESAPEAKE
PORTCENTRE PKWY
EFFINGHAM ST
ELM AVE
DES MOINES AVE
TURNPIKE RD
PORTSMOUTH BLVD
FREDERICK BLVD
464
JORDAN BRIDGE
BAINBRIDGE BLVD
ATLANTIC AVE
PROVIDENCE RD
ELMHURST LN
AIRLINE BLVD
GREENWOOD DR
VICTORY BLVD
GW HWY
Joins Map 15 – Southside East
Joins Map 15 – Southside East
Joins Map 15 – Southside East

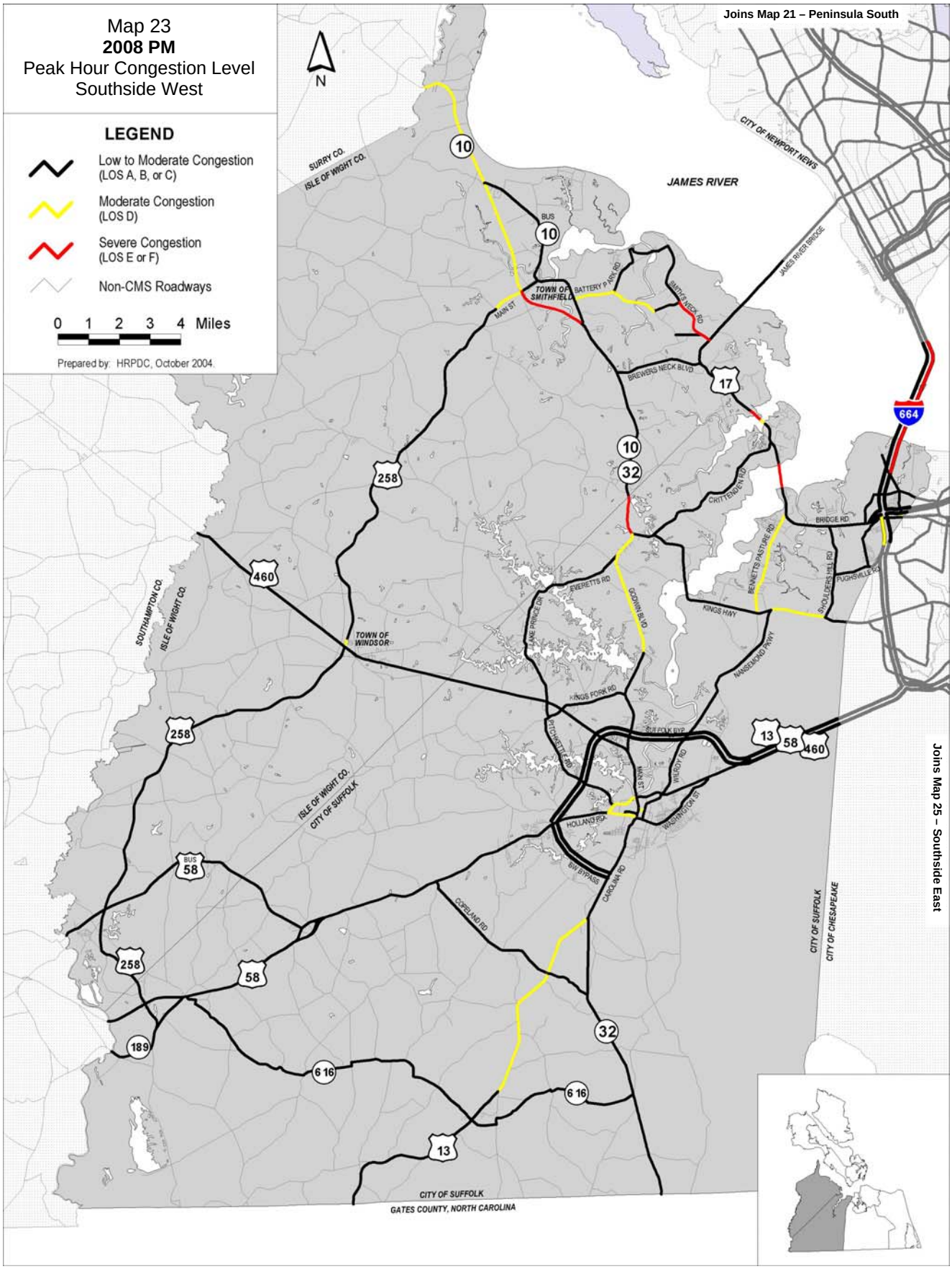

Map 18
2008 AM
Peak Hour Congestion Level
Peninsula North
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 Miles
Prepared by: HRPDC, October 2004.
N
CAMP PEARY
US NAVAL SUPPLY CENTER
US NAVAL WEAPONS STATION
CITY OF WILLIAMSBURG
CITY OF NEWPORT NEWS
YORK RIVER
JAMES RIVER
JAMES CITY CO.
YORK CO.
GLOUCESTER CO.
NEW KENT CO.
KING & QUEEN CO.
CHARLES CITY CO.
64
60
199
17
Joins Map 20 – Peninsula South

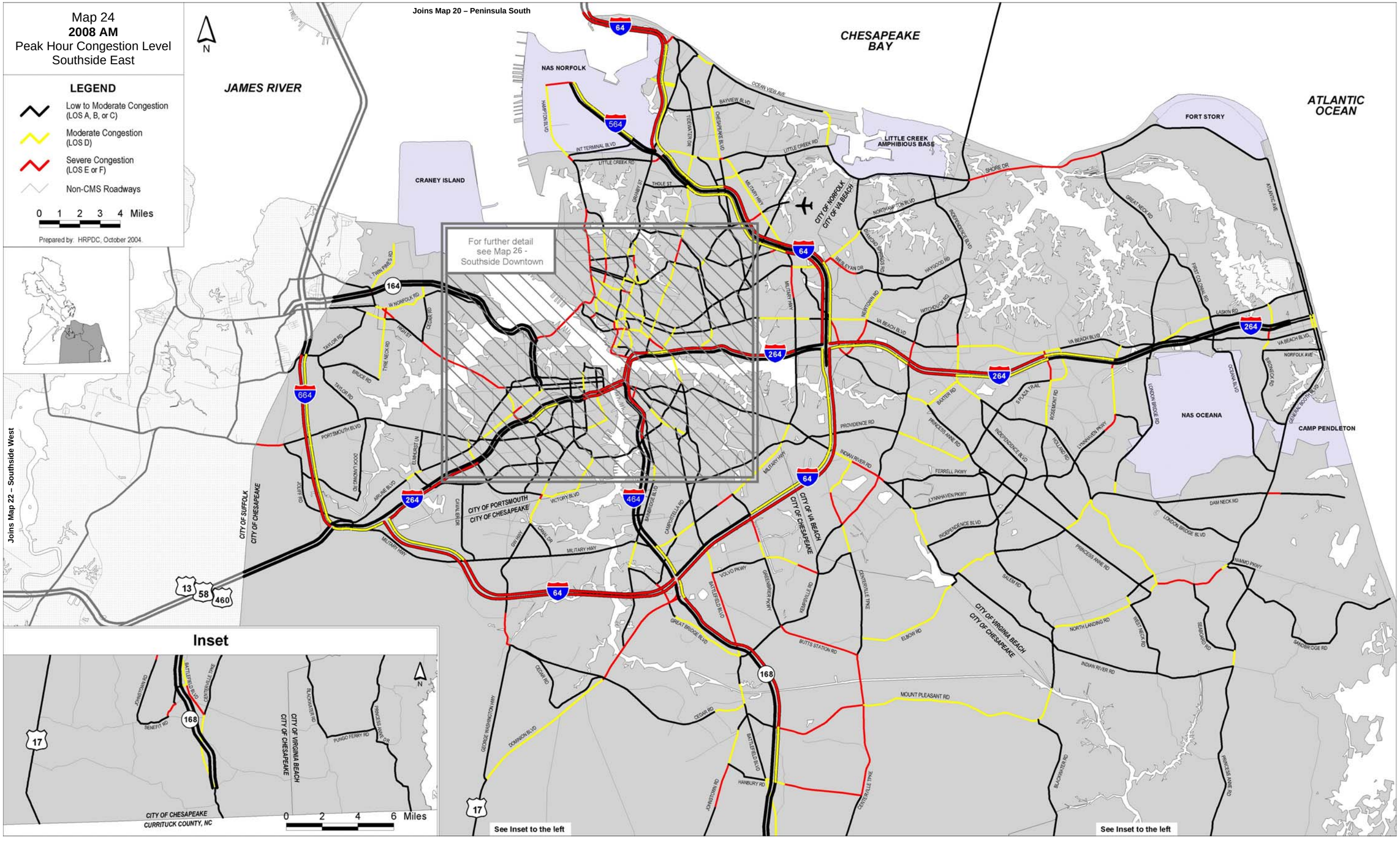

Map 19
2008 PM
Peak Hour Congestion Level
Peninsula North
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 Miles
Prepared by: HRPDC, October 2004.
N
NEW KENT CO.
JAMES CITY CO.
KING & QUEEN CO.
GLOUCESTER CO.
CHARLES CITY CO.
JAMES CITY CO.
YORK CO.
CAMP PEARY
YORK RIVER
US NAVAL SUPPLY CENTER
US NAVAL WEAPONS STATION
CITY OF WILLIAMSBURG
CITY OF NEWPORT NEWS
JAMES RIVER
CROAKER RD
NEWMAN RD
HOSPITAL RD
LONGHILL RD
RICHMOND RD
BYPASS RD
CENTERVILLE RD
MONTICELLO AVE.
IRONBOUND RD
JOHN TYLER HWY
JAMESTOWN RD
COLONIAL PKWY
POCAHONTAS TR
MERRIMAC TR
OLD WILLIAMSBURG RD
JEFFERSON AVE
GOODLEY RD
FORT EUSTIS BLVD
BERKLEY RD
HICKORY FORK RD
MAIN ST
GUINEA RD
Joins Map 20 – Peninsula South

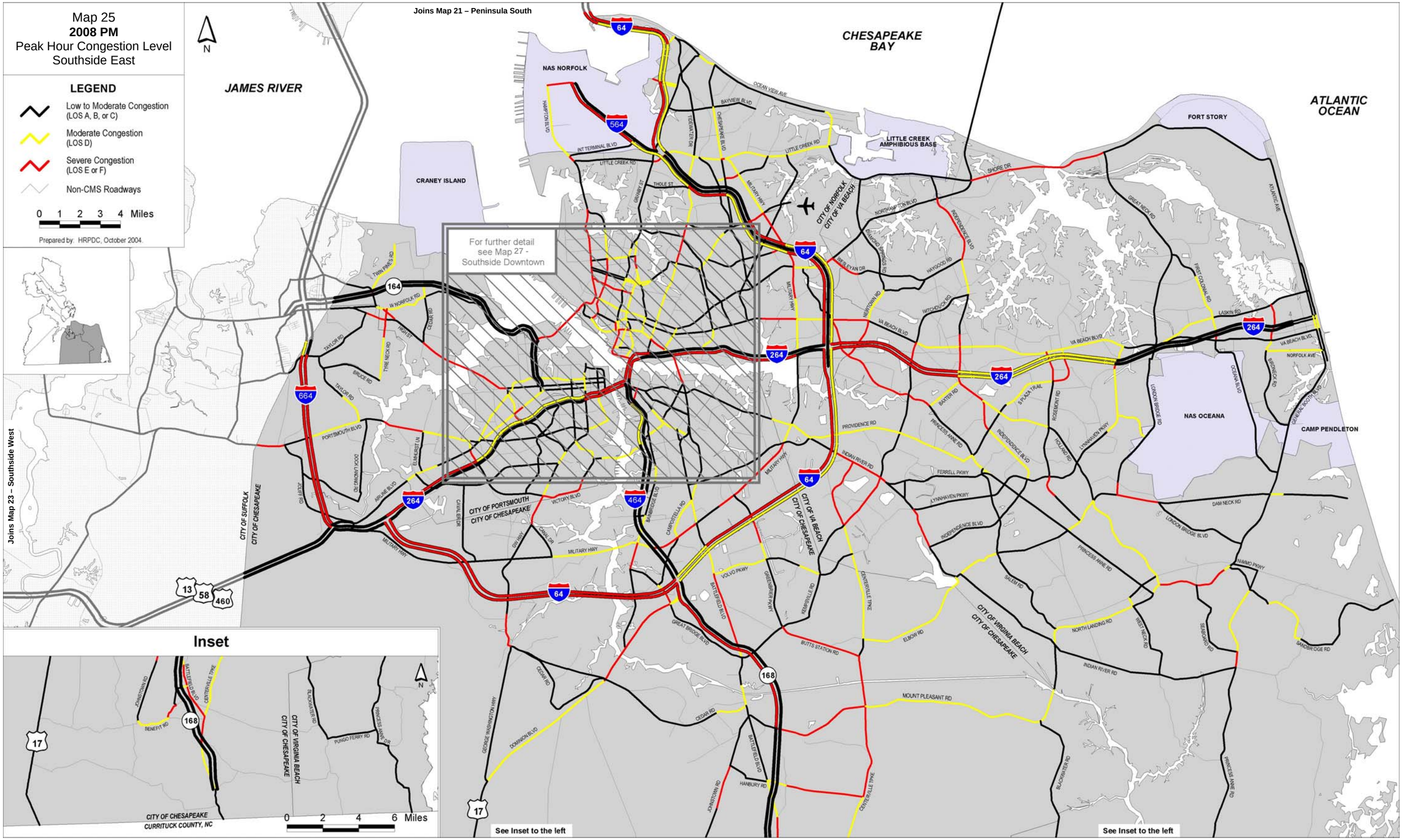

Joins Map 18 – Peninsula North
YORK RIVER
N
Map 20
2008 AM
Peak Hour Congestion Level
Peninsula South
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 Miles
Prepared by: HRPDC, October 2004.
FORT EUSTIS
YORK CO.
CITY OF NEWPORT NEWS
NASA LANGLEY
LANGLEY AIR FORCE BASE
POQUOSON
CHESAPEAKE BAY
JAMES RIVER
CITY OF HAMPTON
FORT MONROE
ISLE OF WIGHT CO.
JAMES RIVER BRIDGE
Joins Map 22 – Southside West
Joins Map 24 – Southside East

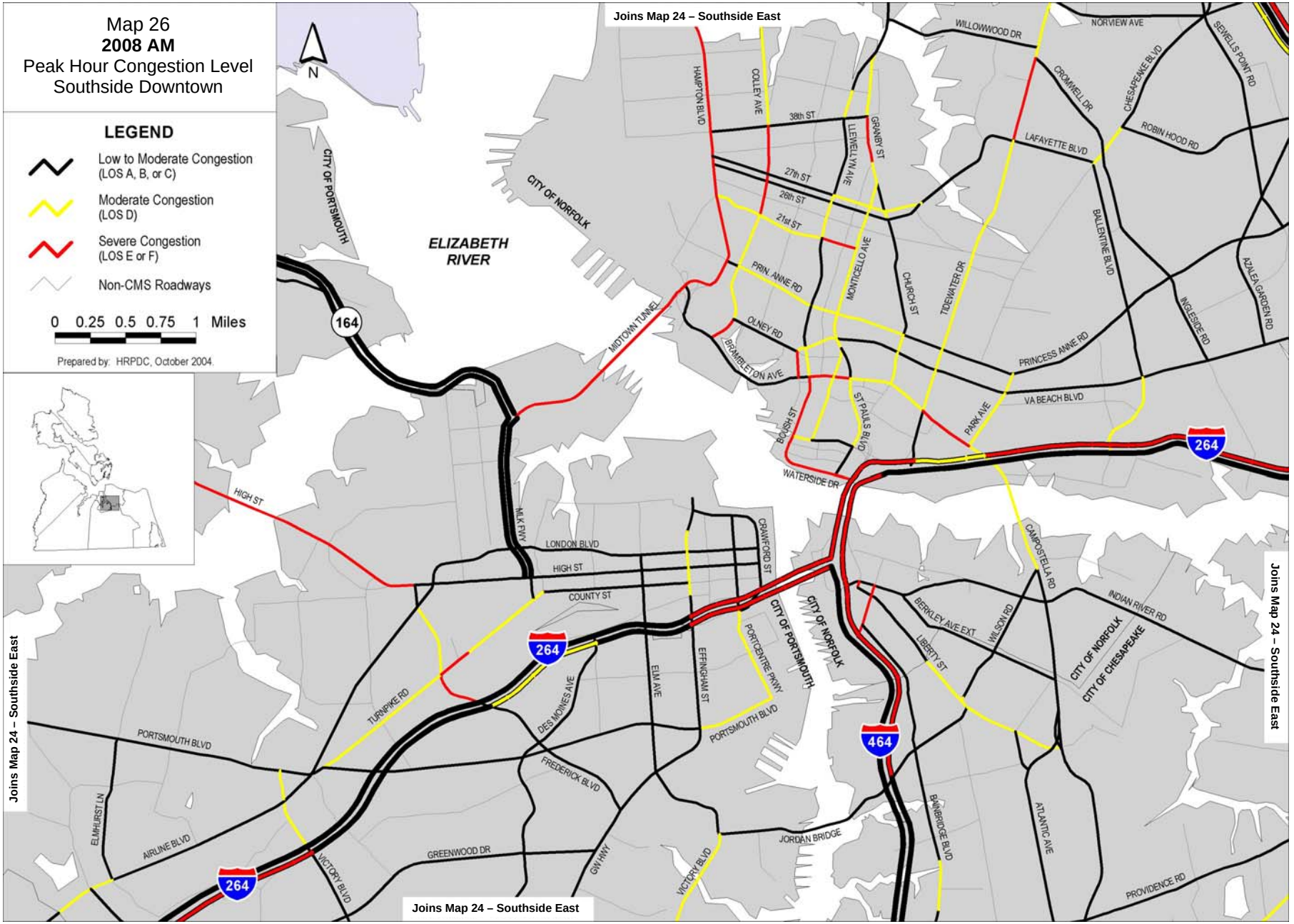

Joins Map 19 – Peninsula North
YORK RIVER
N
Map 21
2008 PM
Peak Hour Congestion Level
Peninsula South
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 Miles
Prepared by: HRPDC, October 2004.
FORT EUSTIS
FORT EUSTIS BLVD
JEFFERSON AVE
HARWICK BLVD
RICHNECK RD
DENBIGH BLVD
64
YORK CO.
CITY OF NEWPORT NEWS
VICTORY BLVD
EAST YORKTOWN RD
POQUOSON AVE
POQUOSON
YORK CO.
17
HAMPTON HWY
WYTHE CREEK RD
NASA LANGLEY
LANGLEY AIR FORCE BASE
OYSTER PT RD
JEFFERSON AVE
SAUNDERS RD
BIG BETHEL RD
HARRISVILLE RD
WARWICK BLVD
HRC PKWY
MARCELLUS BLVD
ARMISTEAD AVE
CHESAPEAKE BAY
LITTLE BACK RIVER RD
KING ST
FOX HILL RD
MERCURY BLVD
WOODLAND RD
OLD BUCKROE RD
MALLORY ST
CITY OF NEWPORT NEWS
JAMES RIVER
TODDS LN
COLGEMAN DR
LASALLE AVE
CITY OF HAMPTON
NEWPORT NEWS
MERCURY BLVD
REBECCA RD
RIVER PLANT PKWY
CHESTNUT AVE
ROANOKE AVE
BRIARFIELD RD
PEMBROKE AVE
KECKOUGHTAN RD
WARWICK BLVD
HUNTINGTON AVE
JEFFERSON AVE
39TH ST
26TH ST
25TH ST
664
64
FORT MONROE
JAMES RIVER BRIDGE
ISLE OF WIGHT CO.
Joins Map 23 – Southside West
Joins Map 25 – Southside East

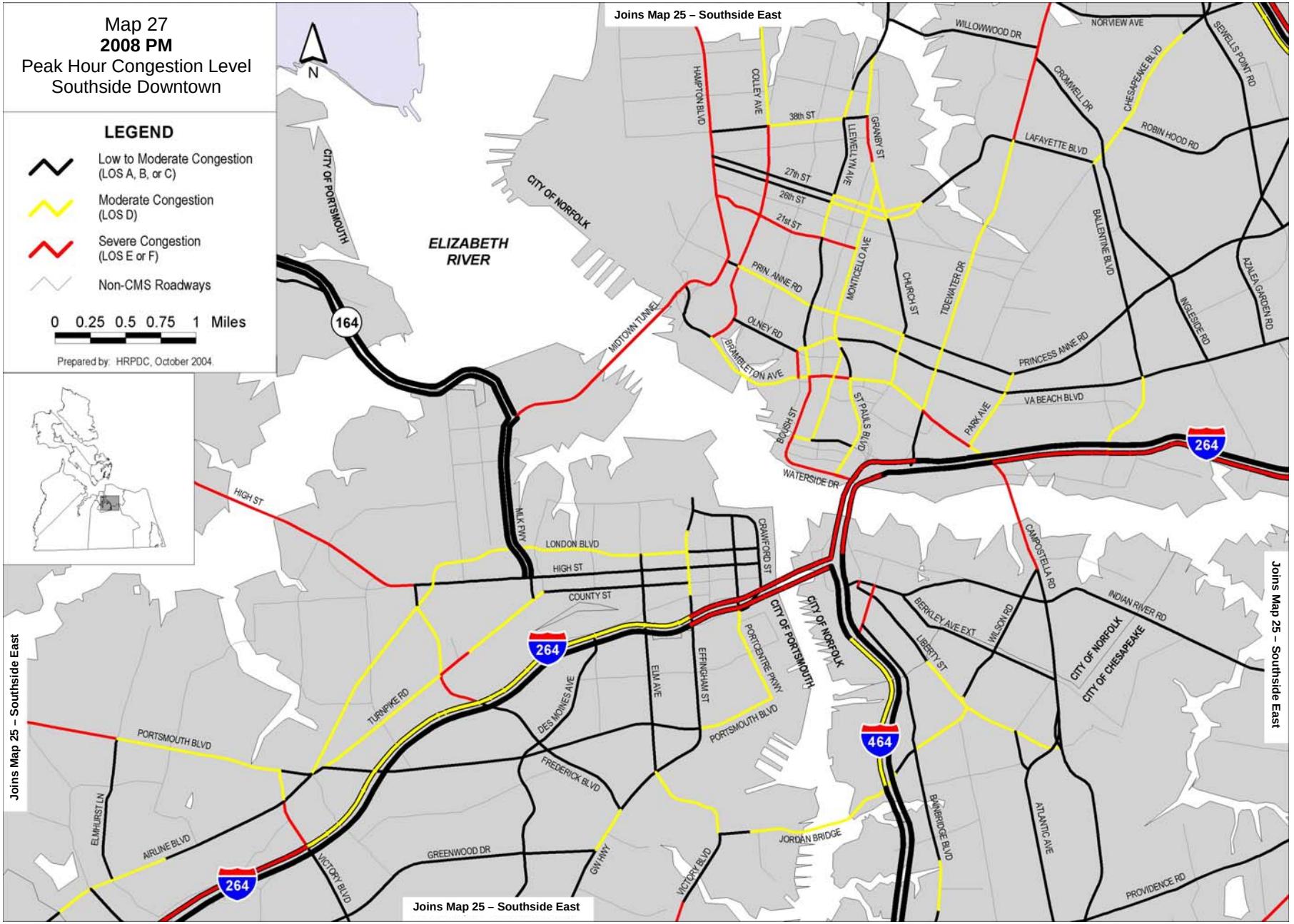

Map 22
2008 AM
Peak Hour Congestion Level
Southside West
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 4 Miles
Prepared by: HRPDC, October 2004
N
Joins Map 20 – Peninsula South
Joins Map 24 – Southside East
JAMES RIVER
CITY OF NEWPORT NEWS
SURRY CO.
ISLE OF WIGHT CO.
SOUTHAMPTON CO.
TOWN OF SMITHFIELD
TOWN OF WINDSOR
CITY OF SUFFOLK
CITY OF CHESAPEAKE
GATES COUNTY, NORTH CAROLINA
BATTERY PARK RD
BREWERS NECK BLVD
MAIN ST
JAMES RIVER BRIDGE
CRITTENDEN RD
BRIDGE RD
BENNETTS PASTURE RD
SHOULDERS HILL RD
PUGHSVILLE RD
KINGS HWY
GODWIN BLVD
EVERETTS RD
LANE PRINCE DR
KINGS FORK RD
NANSEMOND PKWY
PITCHKETTLE RD
HOLLAND RD
WILROY RD
WASHINGTON ST
BW BYPASS
CAROLINA RD
COPELAND RD
10
17
664
32
258
460
58
13
189
6 16

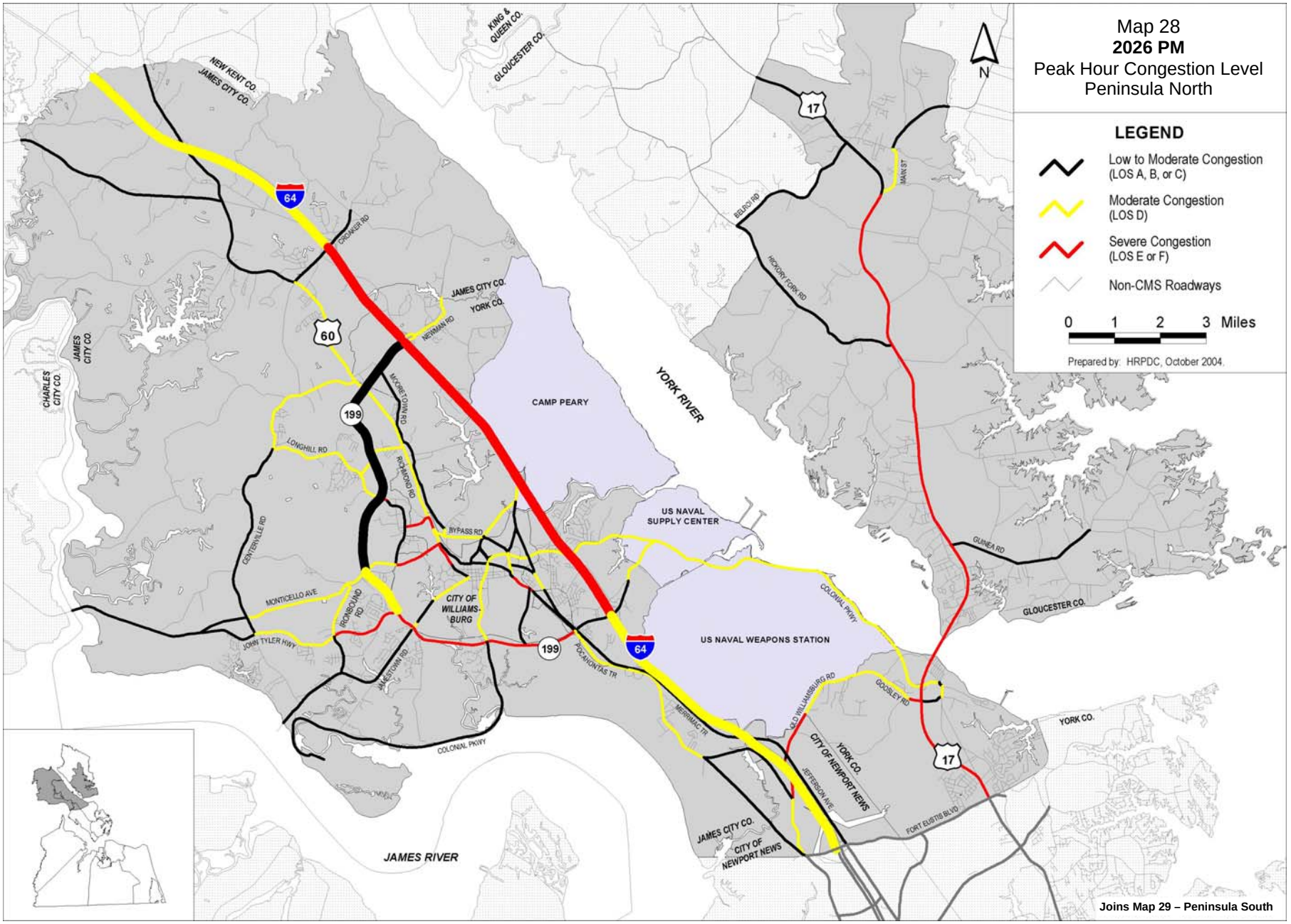

Map 23
2008 PM
Peak Hour Congestion Level
Southside West
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 4 Miles
Prepared by: HRPDC, October 2004.
N
Joins Map 21 – Peninsula South
Joins Map 25 – Southside East
JAMES RIVER
CITY OF NEWPORT NEWS
SURRY CO.
ISLE OF WIGHT CO.
SOUTHAMPTON CO.
CITY OF SUFFOLK
CITY OF CHESAPEAKE
GATES COUNTY, NORTH CAROLINA
TOWN OF SMITHFIELD
TOWN OF WINDSOR
JAMES RIVER BRIDGE
BREWERS NECK BLVD
BATTERY PARK BLVD
MAIN ST
BRIDGE RD
CRITTENDEN RD
BENNETTS PASTURE RD
FUGHSVILLE RD
SHOULDERS HILL RD
EVERETTS RD
GODWIN BLVD
KINGS HWY
KINGS FORK RD
NANSEMOND PKWY
HOLLAND RD
BYPASS
CAROLINA RD
COPELAND RD
WILROY RD
WASHINGTON ST
10
BUS 10
17
664
32
460
258
58
BUS 58
13
189
6 16

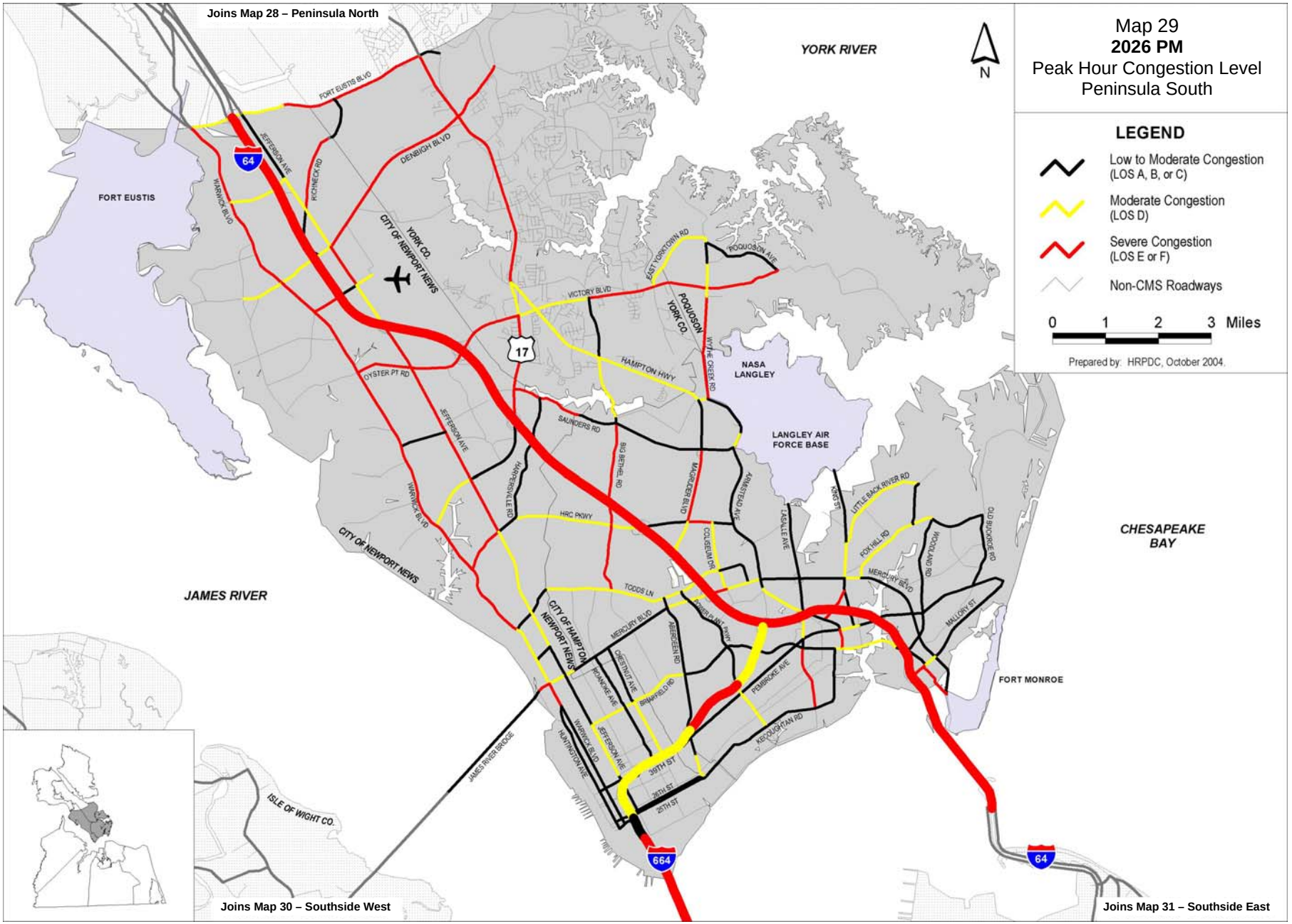

Map 24
2008 AM
Peak Hour Congestion Level
Southside East
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 4 Miles
Prepared by: HRPDC, October 2004.
N
Joins Map 20 – Peninsula South
Joins Map 22 – Southside West
JAMES RIVER
CHESAPEAKE BAY
ATLANTIC OCEAN
NAS NORFOLK
CRANEY ISLAND
LITTLE CREEK AMPHIBIOUS BASE
FORT STORY
NAS OCEANA
CAMP PENDLETON
CITY OF NORFOLK
CITY OF VA BEACH
CITY OF SUFFOLK
CITY OF CHESAPEAKE
CITY OF PORTSMOUTH
CITY OF VIRGINIA BEACH
For further detail see Map 26 - Southside Downtown
See Inset to the left
See Inset to the left
Inset
CITY OF CHESAPEAKE
CURRITUCK COUNTY, NC
0 2 4 6 Miles

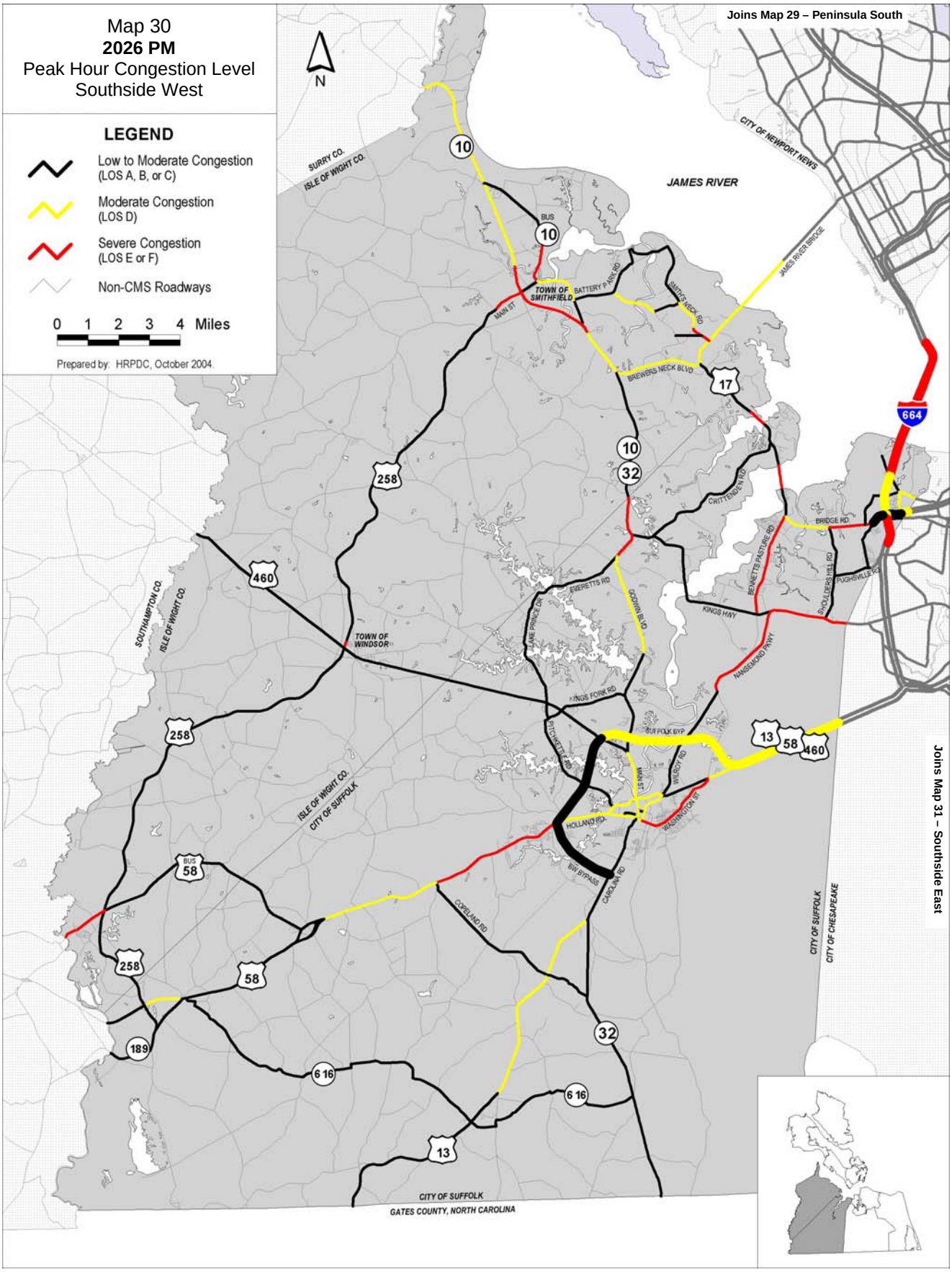

Map 25
2008 PM
Peak Hour Congestion Level
Southside East
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 4 Miles
Prepared by: HRPDC, October 2004.
N
Joins Map 21 – Peninsula South
Joins Map 23 – Southside West
JAMES RIVER
CHESAPEAKE BAY
ATLANTIC OCEAN
NAS NORFOLK
CRANEY ISLAND
LITTLE CREEK AMPHIBIOUS BASE
FORT STORY
NAS OCEANA
CAMP PENDLETON
CITY OF NORFOLK
CITY OF VA BEACH
CITY OF SUFFOLK
CITY OF CHESAPEAKE
CITY OF PORTSMOUTH
CITY OF VIRGINIA BEACH
For further detail see Map 27 - Southside Downtown
See Inset to the left
See Inset to the left
Inset
CITY OF CHESAPEAKE
CURRITUCK COUNTY, NC
0 2 4 6 Miles

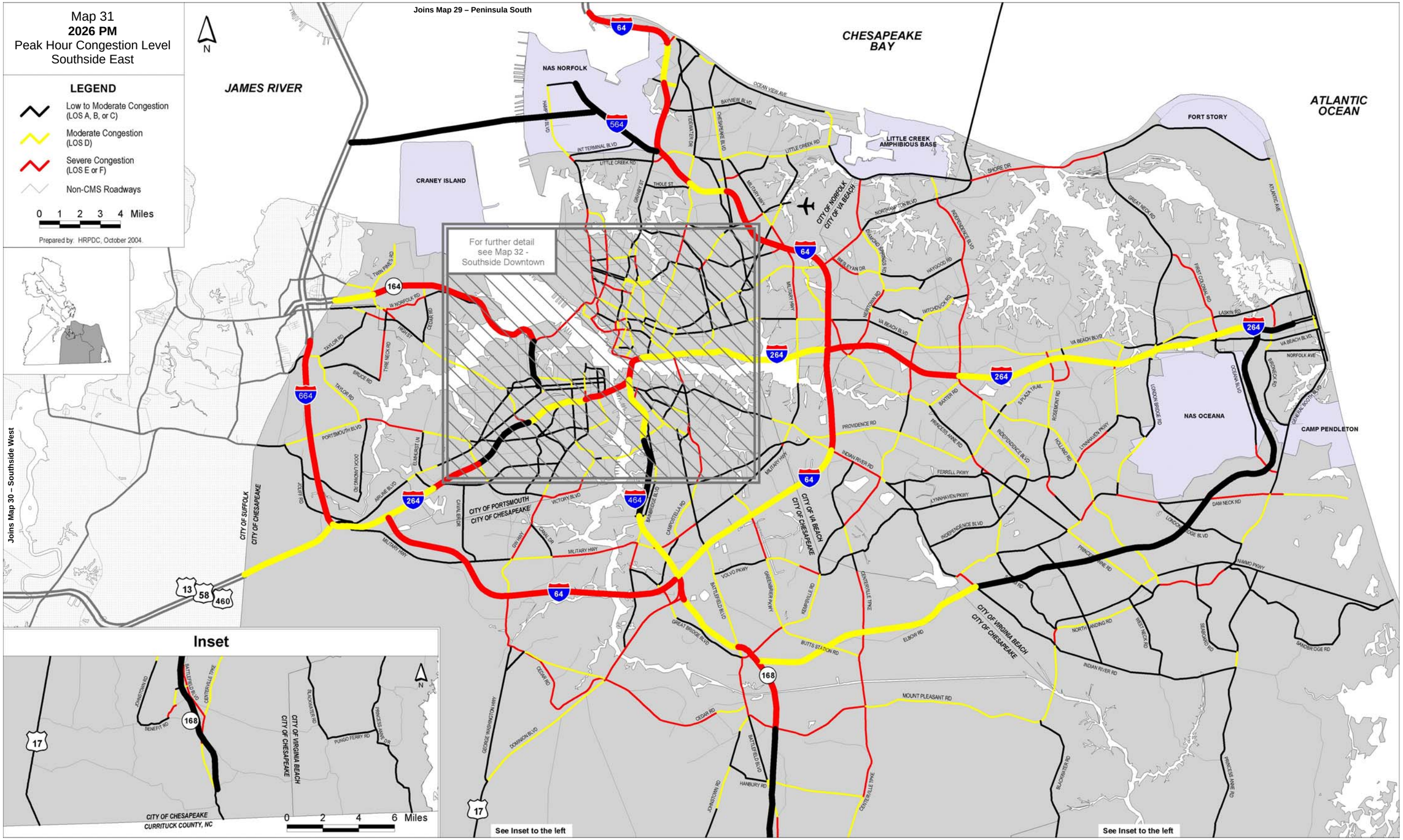

Map 26
2008 AM
Peak Hour Congestion Level
Southside Downtown
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 0.25 0.5 0.75 1 Miles
Prepared by: HRPDC, October 2004.
N
Joins Map 24 – Southside East
CITY OF PORTSMOUTH
CITY OF NORFOLK
ELIZABETH RIVER
MIDTOWN TUNNEL
HAMPTON BLVD
COLLEY AVE
38th ST
LLEWELLYN AVE
GRANBY ST
27th ST
26th ST
21st ST
PRIN. ANNE RD
OLNEY RD
BROMBLETON AVE
MONTICELLO AVE
CHURCH ST
TIDEWATER DR
WILLOWWOOD DR
NORVIEW AVE
CROMWELL DR
CHESAPEAKE BLVD
SEWELLS POINT RD
ROBIN HOOD RD
LAFAYETTE BLVD
BALLENTINE BLVD
INGLESIDE RD
AZALEA GARDEN RD
PRINCESS ANNE RD
VA BEACH BLVD
PARK AVE
ST PAULS BLVD
BOUSH ST
WATERSIDE DR
264
164
HIGH ST
MLK FWY
LONDON BLVD
COUNTY ST
CRAWFORD ST
CAMPOSTELLA RD
INDIAN RIVER RD
BERKLEY AVE EXT
WILSON RD
LIBERTY ST
CITY OF CHESAPEAKE
PORTCENTRE PKWY
EFFINGHAM ST
ELM AVE
DES MOINES AVE
TURNPIKE RD
PORTSMOUTH BLVD
FREDERICK BLVD
ELMHURST LN
AIRLINE BLVD
GREENWOOD DR
VICTORY BLVD
GW HWY
JORDAN BRIDGE
BAINBRIDGE BLVD
ATLANTIC AVE
PROVIDENCE RD
464
Joins Map 24 – Southside East
Joins Map 24 – Southside East
Joins Map 24 – Southside East

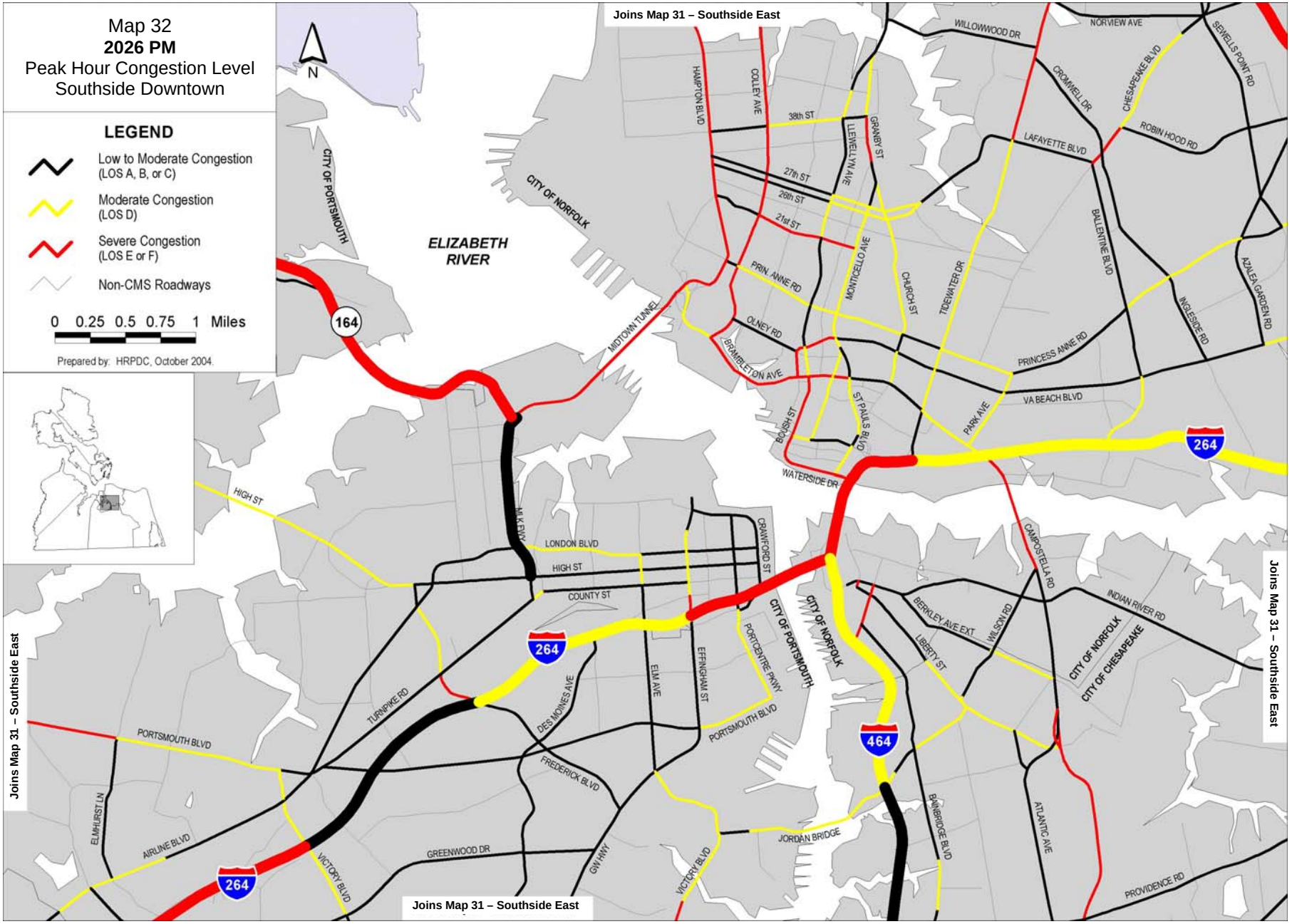

Map 27
2008 PM
Peak Hour Congestion Level
Southside Downtown
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 0.25 0.5 0.75 1 Miles
Prepared by: HRPDC, October 2004.
N
Joins Map 25 – Southside East
CITY OF PORTSMOUTH
CITY OF NORFOLK
ELIZABETH RIVER
MIDTOWN TUNNEL
HAMPTON BLVD
COLLEY AVE
38th ST
LLEWELLYN AVE
GRANBY ST
27th ST
26th ST
21st ST
PRIN. ANNE RD
OLNEY RD
BROMBLETON AVE
MONTICELLO AVE
CHURCH ST
TIDEWATER DR
WILLOWWOOD DR
NORVIEW AVE
CROMWELL DR
CHESAPEAKE BLVD
SEWELLS POINT RD
LAFAYETTE BLVD
ROBIN HOOD RD
BALLENTINE BLVD
INGLESIDE RD
AZALEA GARDEN RD
PRINCESS ANNE RD
VA BEACH BLVD
PARK AVE
ST PAULS BLVD
BOUSH ST
WATERSIDE DR
264
164
HIGH ST
MLK FWY
LONDON BLVD
COUNTY ST
CRAWFORD ST
CAMPOSTELLA RD
INDIAN RIVER RD
BERKLEY AVE EXT
WILSON RD
LIBERTY ST
CITY OF CHESAPEAKE
PORTCENTRE PKWY
EFFINGHAM ST
ELM AVE
DES MOINES AVE
TURNPIKE RD
PORTSMOUTH BLVD
FREDERICK BLVD
464
BAINBRIDGE BLVD
ATLANTIC AVE
PROVIDENCE RD
JORDAN BRIDGE
VICTORY BLVD
GW HWY
GREENWOOD DR
AIRLINE BLVD
ELMHURST LN
Joins Map 25 – Southside East
Joins Map 25 – Southside East
Joins Map 25 – Southside East


Map 28
2026 PM
Peak Hour Congestion Level
Peninsula North
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 Miles
Prepared by: HRPDC, October 2004.
N
NEW KENT CO.
JAMES CITY CO.
KING & QUEEN CO.
GLOUCESTER CO.
CHARLES CITY CO.
JAMES CITY CO
YORK CO.
CAMP PEARY
YORK RIVER
US NAVAL SUPPLY CENTER
US NAVAL WEAPONS STATION
CITY OF WILLIAMSBURG
CITY OF NEWPORT NEWS
JAMES RIVER
64
60
199
17
CROAKER RD
NEWMAN RD
LONGHILL RD
MCGOMETOWN RD
RICHMOND RD
BYPASS RD
CENTERVILLE RD
MONTICELLO AVE
IRONBOUND RD
JOHN TYLER HWY
JAMESTOWN RD
COLONIAL PKWY
POCAHONTAS TR
MERRIMAC TR
OLD WILLIAMSBURG RD
JEFFERSON AVE
GOOSLEY RD
FORT EUSTIS BLVD
BERLIN RD
HICKORY FORK RD
MAIN ST
GUINEA RD
Joins Map 29 – Peninsula South


Joins Map 28 – Peninsula North
YORK RIVER
N
Map 29
2026 PM
Peak Hour Congestion Level
Peninsula South
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 Miles
Prepared by: HRPDC, October 2004.
FORT EUSTIS
FORT EUSTIS BLVD
JEFFERSON AVE
HARWICK BLVD
RICHNECK RD
DENBIGH BLVD
64
CITY OF NEWPORT NEWS
YORK CO.
VICTORY BLVD
EAST YORKTOWN RD
POQUOSON AVE
POQUOSON
YORK CO.
WYTHE CREEK RD
17
HAMPTON HWY
NASA LANGLEY
LANGLEY AIR FORCE BASE
OYSTER PT RD
JEFFERSON AVE
SAUNDERS RD
BIG BETHEL RD
MARCELLA RD
WARWICK BLVD
HRC PKWY
MARCELLA BLVD
KAMSTEAD AVE
COLISEUM DR
TASLLE AVE
KINGS GRANT
LITTLE BACK RIVER RD
FOX HILL RD
MOORLAND RD
OLD BUCKROE RD
MERCURY BLVD
MALLORY ST
CHESAPEAKE BAY
JAMES RIVER
CITY OF NEWPORT NEWS
TODDS LN
CITY OF HAMPTON
NEWPORT NEWS
MERCURY BLVD
ABERDEEN RD
CHESTNUT AVE
ROANOKE AVE
BRIARFIELD RD
PEMBROKE AVE
MERCHANT RD
WARWICK BLVD
HUNTINGTON AVE
JEFFERSON AVE
39TH ST
26TH ST
25TH ST
FORT MONROE
JAMES RIVER BRIDGE
ISLE OF WIGHT CO.
664
64
Joins Map 30 – Southside West
Joins Map 31 – Southside East


Map 30
2026 PM
Peak Hour Congestion Level
Southside West
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 4 Miles
Prepared by: HRPDC, October 2004
N
Joins Map 29 – Peninsula South
Joins Map 31 – Southside East
JAMES RIVER
CITY OF NEWPORT NEWS
SURRY CO.
ISLE OF WIGHT CO.
SOUTHAMPTON CO.
TOWN OF SMITHFIELD
TOWN OF WINDSOR
CITY OF SUFFOLK
GATES COUNTY, NORTH CAROLINA
CITY OF CHESAPEAKE
JAMES RIVER BRIDGE
BREWERS NECK BLVD
BATTERY PARK RD
SMITHS NECK RD
MAIN ST
CRITTENDEN RD
BRIDGE RD
PUGHSVILLE RD
SHOULDERS HILL RD
BENNETTS PASTURE RD
KINGS HWY
EMERETTS RD
GODWIN BLVD
LAKE PRINCE DR
NANSEMOND PKWY
KINGS FORK RD
PITCHKETTLE RD
SUFFOLK BYP
WILROY RD
WASHINGTON ST
HOLLAND RD
BW BYPASS
CAROLINA RD
COPELAND RD
10
BUS 10
17
664
32
460
258
BUS 58
58
13
189
6 16


Map 31
2026 PM
Peak Hour Congestion Level
Southside East
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 1 2 3 4 Miles
Prepared by: HRPDC, October 2004.
N
Joins Map 29 – Peninsula South
Joins Map 30 – Southside West
JAMES RIVER
CHESAPEAKE BAY
ATLANTIC OCEAN
NAS NORFOLK
CRANEY ISLAND
LITTLE CREEK AMPHIBIOUS BASE
FORT STORY
NAS OCEANA
CAMP PENDLETON
CITY OF NORFOLK
CITY OF VA BEACH
CITY OF SUFFOLK
CITY OF CHESAPEAKE
CITY OF PORTSMOUTH
CITY OF VIRGINIA BEACH
For further detail see Map 32 - Southside Downtown
See Inset to the left
See Inset to the left
Inset
CITY OF CHESAPEAKE
CURRITUCK COUNTY, NC
0 2 4 6 Miles

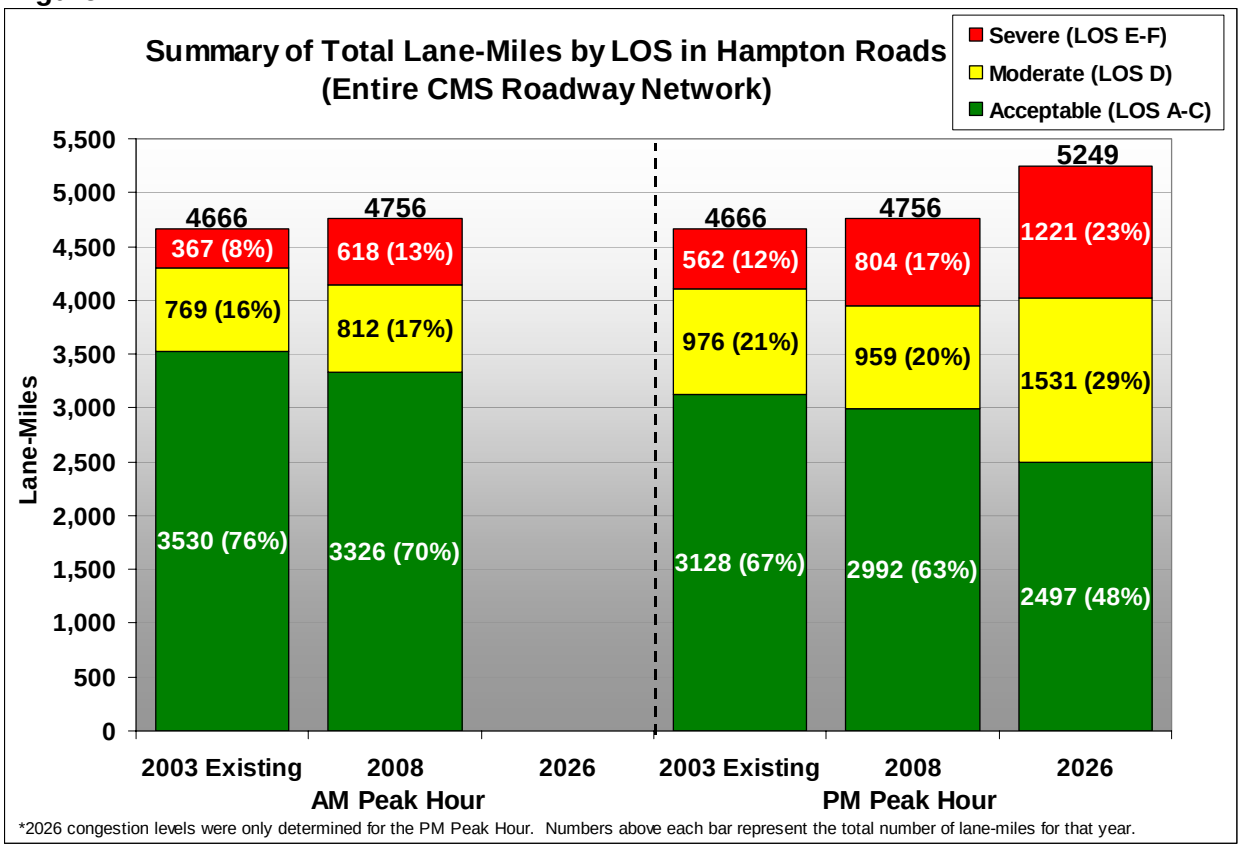

Map 32
2026 PM
Peak Hour Congestion Level
Southside Downtown
LEGEND
Low to Moderate Congestion (LOS A, B, or C)
Moderate Congestion (LOS D)
Severe Congestion (LOS E or F)
Non-CMS Roadways
0 0.25 0.5 0.75 1 Miles
Prepared by: HRPDC, October 2004.
N
Joins Map 31 – Southside East
CITY OF PORTSMOUTH
CITY OF NORFOLK
ELIZABETH RIVER
MIDTOWN TUNNEL
HAMPTON BLVD
COLLEY AVE
38th ST
27th ST
26th ST
21st ST
LLEWELLYN AVE
GRANBY ST
WILLOWWOOD DR
NORVIEW AVE
CROMWELL DR
CHESAPEAKE BLVD
SEWELLS POINT RD
LAFAYETTE BLVD
ROBIN HOOD RD
BALLENTINE BLVD
AZALEA GARDEN RD
INGLESIDE RD
PRINCESS ANNE RD
VA BEACH BLVD
PARK AVE
ST PAULS BLVD
BOUSH ST
PRIN. ANNE RD
OLNEY RD
BRAMBLETON AVE
MONTICELLO AVE
CHURCH ST
TIDEWATER DR
WATERSIDE DR
HIGH ST
MLK FWY
LONDON BLVD
COUNTY ST
CRAWFORD ST
CAMPOSTELLA RD
INDIAN RIVER RD
BERKLEY AVE EXT
WILSON RD
LIBERTY ST
CITY OF CHESAPEAKE
TURNPIKE RD
PORTSMOUTH BLVD
DES MOINES AVE
ELM AVE
EFFINGHAM ST
PORTCENTRE PKWY
FREDERICK BLVD
ELMHURST LN
AIRLINE BLVD
GREENWOOD DR
VICTORY BLVD
GW HWY
JORDAN BRIDGE
BAINBRIDGE BLVD
ATLANTIC AVE
PROVIDENCE RD
164
264
464

Congestion Analysis Summary

The overall results of the Hampton Roads' CMS level of service (LOS) analysis show that approximately 367 or 8% (AM Peak Hour) and 562 or 12% (PM Peak Hour) of the 2003 Existing roadway network's total lane-miles (4,666) are operating at unacceptable/severe conditions (LOS E-F). The number of lane-miles operating at severe congestion levels is expected to increase by 251 from 367 to 618 (AM Peak Hour) and by 242 from 562 to 804 (PM Peak Hour) by the year 2008. The long-range 2026 congestion analysis results (PM Peak Hour only) show that the number of severely congested lane-miles are expected to more than double from 562 (2003 Existing) to 1,221 (2026). This increase in congested lane-miles can be attributed to the expected increase in travel (vehicle-miles of travel) on the region's roadways by the year 2026.

Furthermore, by 2026, an additional 1,531 or 29% of the total number of CMS lane-miles (5,248) will be operating at LOS D during the afternoon rush hour. LOS D (Moderate Congestion Level), despite being an acceptable level, is the "warning" level condition where favorable traffic conditions are on the verge of becoming unfavorable. Oftentimes, only small incidents are necessary on these roadways to trigger severe operating conditions.

Figure 21



Summary by Facility Type and Locality

Tables 8 – 10 on page 63 provide a detailed summary of the congested lane-miles during the PM peak hour for each facility type by Hampton Roads' jurisdiction for 2003 Existing, 2008, and 2026. In order to see how traffic conditions are expected to change on various roadways in the region from 2003 Existing to 2026, a summary has only been provided for the PM peak hour (the 2026 congestion analysis was for the PM peak hour only).

Figure 22 – Severely Congested CMS Lane-Miles for PM Peak Hour by Locality

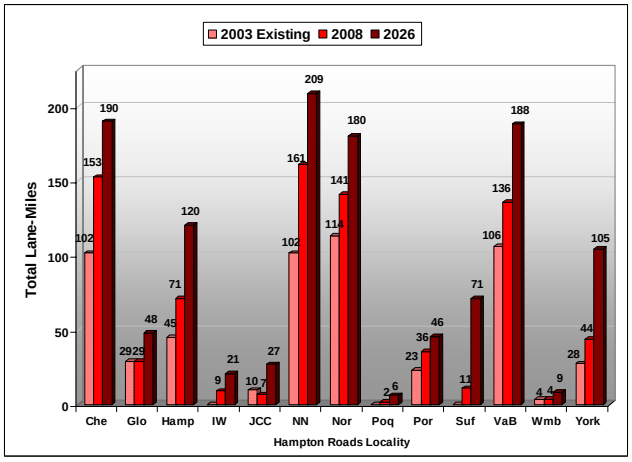


Figure 23 – Severely Congested CMS Lane-Miles for PM Peak Hour by Facility Type

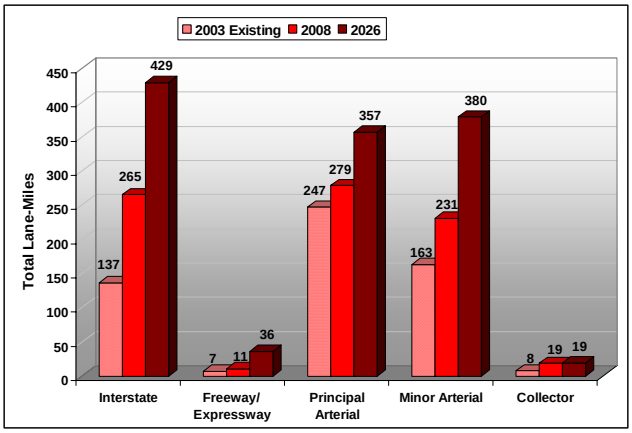


Table 8 – 2003 Existing Congested CMS Lane-Miles By Facility Type and Locality (PM Peak Hour)

Facility Type	Congestion Type	Che	Glo	Hamp	IW	JCC	NN	Nor	Poq	Por	Suf	VaB	Wmb	York	TOTAL Lane Miles	% of Fac Type	% of Cong Type	% of Total
Interstate	Acceptable (LOS A-C)	56	0	23	0	40	49	77	0	21	18	52	0	41	375	50%	12%	8%
	Moderate (LOS D)	44	0	48	0	5	37	47	0	6	9	42	0	4	242	32%	25%	5%
	Severe (LOS E-F)	29	0	20	0	0	10	48	0	3	0	27	0	0	137	18%	24%	3%
	Total	129	0	90	0	44	95	172	0	30	27	121	0	45	753	100%	na	16%
Freeway / Expressway	Acceptable (LOS A-C)	64	0	7	0	25	3	0	0	24	71	5	0	10	207	92%	7%	4%
	Moderate (LOS D)	6	0	6	0	0	0	0	0	0	0	0	0	0	11	5%	1%	0%
	Severe (LOS E-F)	5	0	2	0	0	0	0	0	0	0	0	1	0	7	3%	1%	0%
	Total	74	0	14	0	25	3	0	0	24	71	5	1	10	226	100%	na	5%
Principal Arterial	Acceptable (LOS A-C)	60	35	40	105	14	49	103	0	24	166	128	9	36	770	56%	25%	17%
	Moderate (LOS D)	36	0	9	9	17	28	101	0	15	28	52	12	50	356	26%	36%	8%
	Severe (LOS E-F)	45	29	4	0	9	47	45	0	14	0	30	2	23	247	18%	44%	5%
	Total	141	64	53	114	40	123	249	0	54	194	210	23	108	1,373	100%	na	29%
Minor Arterial	Acceptable (LOS A-C)	193	12	164	98	123	70	156	6	93	132	383	18	25	1,473	75%	47%	32%
	Moderate (LOS D)	55	0	33	0	11	31	39	3	34	5	79	7	23	321	16%	33%	7%
	Severe (LOS E-F)	23	0	17	0	1	45	21	0	5	0	45	1	5	163	8%	29%	3%
	Total	272	12	214	98	135	146	216	9	132	137	507	25	54	1,958	100%	na	42%
Collector	Acceptable (LOS A-C)	41	25	10	12	20	21	0	5	3	88	57	4	16	302	85%	10%	6%
	Moderate (LOS D)	6	0	9	9	5	8	0	0	3	0	6	0	1	46	13%	5%	1%
	Severe (LOS E-F)	0	0	3	0	0	0	0	0	1	0	4	0	0	8	2%	1%	0%
	Total	47	25	21	21	25	28	0	5	7	89	67	4	17	356	100%	na	8%
Total All Facilities	**Acceptable (LOS A-C)**	**414**	**72**	**244**	**216**	**221**	**190**	**337**	**11**	**165**	**474**	**625**	**31**	**128**	**3,128**	**67%**	**100%**	**67%**
	Moderate (LOS D)	**147**	**0**	**104**	**18**	**38**	**103**	**187**	**3**	**58**	**42**	**179**	**18**	**78**	**976**	**21%**	**100%**	**21%**
	Severe (LOS E-F)	**102**	**29**	**45**	**0**	**10**	**102**	**114**	**0**	**23**	**0**	**106**	**4**	**28**	**562**	**12%**	**100%**	**12%**
	Total	**663**	**101**	**393**	**234**	**269**	**395**	**637**	**15**	**246**	**516**	**910**	**53**	**234**	**4,666**	**100%**	**na**	**100%**

Table 9 – 2008 Congested CMS Lane-Miles By Facility Type and Locality (PM Peak Hour)

Facility Type	Congestion Type	Che	Glo	Hamp	IW	JCC	NN	Nor	Poq	Por	Suf	VaB	Wmb	York	TOTAL Lane Miles	% of Fac Type	% of Cong Type	% of Total
Interstate	Acceptable (LOS A-C)	43	0	30	0	35	30	70	0	13	18	33	0	37	308	41%	10%	6%
	Moderate (LOS D)	23	0	27	0	5	26	41	0	10	3	49	0	4	188	25%	20%	4%
	Severe (LOS E-F)	64	0	39	0	5	40	62	0	6	7	39	0	4	265	35%	33%	6%
	Total	131	0	96	0	44	95	172	0	30	27	121	0	45	761	100%	na	16%
Freeway / Expressway	Acceptable (LOS A-C)	63	0	9	0	25	3	0	0	28	71	5	0	10	212	92%	7%	4%
	Moderate (LOS D)	1	0	6	0	0	0	0	0	0	0	0	0	0	7	3%	1%	0%
	Severe (LOS E-F)	10	0	0	0	0	0	0	0	0	0	0	1	0	11	5%	1%	0%
	Total	74	0	14	0	25	3	0	0	28	71	5	1	10	229	100%	na	5%
Principal Arterial	Acceptable (LOS A-C)	92	35	32	91	23	49	97	0	22	166	125	9	37	778	55%	26%	16%
	Moderate (LOS D)	30	0	11	17	24	17	95	0	17	23	57	12	47	351	25%	37%	7%
	Severe (LOS E-F)	39	29	10	6	1	61	57	0	14	4	30	2	25	279	20%	35%	6%
	Total	161	64	53	114	47	127	249	0	54	194	212	23	110	1,407	100%	na	30%
Minor Arterial	Acceptable (LOS A-C)	183	12	149	98	120	65	155	6	90	122	376	18	21	1,414	71%	47%	30%
	Moderate (LOS D)	67	0	49	1	14	25	38	1	28	15	94	7	18	357	18%	37%	8%
	Severe (LOS E-F)	35	0	18	0	1	59	23	2	14	0	64	1	15	231	12%	29%	5%
	Total	285	12	216	98	135	149	216	9	132	137	534	25	54	2,002	100%	na	42%
Collector	Acceptable (LOS A-C)	35	25	8	12	20	11	0	5	3	88	53	4	16	281	79%	9%	6%
	Moderate (LOS D)	7	0	9	6	5	15	0	0	3	0	10	0	1	57	16%	6%	1%
	Severe (LOS E-F)	5	0	4	4	0	2	0	0	1	0	4	0	0	19	5%	2%	0%
	Total	47	25	21	21	25	28	0	5	7	89	67	4	17	356	100%	na	7%
Total	**Acceptable (LOS A-C)**	**416**	**72**	**227**	**201**	**222**	**158**	**322**	**11**	**156**	**464**	**592**	**31**	**121**	**2,992**	**63%**	**100%**	**63%**
	Moderate (LOS D)	**129**	**0**	**102**	**24**	**48**	**83**	**174**	**1**	**58**	**41**	**211**	**19**	**70**	**959**	**20%**	**100%**	**20%**
	Severe (LOS E-F)	**153**	**29**	**71**	**9**	**7**	**161**	**141**	**2**	**36**	**11**	**136**	**4**	**44**	**804**	**17%**	**100%**	**17%**
	Total	**697**	**101**	**401**	**234**	**277**	**402**	**637**	**15**	**250**	**516**	**939**	**53**	**235**	**4,756**	**100%**	**na**	**100%**

Table 10 – 2026 Congested CMS Lane-Miles By Facility Type and Locality (PM Peak Hour)

Facility Type	Congestion Type	Che	Glo	Hamp	IW	JCC	NN	Nor	Poq	Por	Suf	VaB	Wmb	York	TOTAL Lane Miles	% of Fac Type	% of Cong Type	% of Total
Interstate	Acceptable (LOS A-C)	11	0	0	0	0	6	32	0	36	3	6	0	0	94	11%	4%	2%
	Moderate (LOS D)	64	0	11	0	47	40	60	0	12	9	75	0	16	334	39%	22%	6%
	Severe (LOS E-F)	56	0	85	0	7	83	96	0	8	18	40	0	37	429	50%	35%	8%
	Total	131	0	96	0	54	129	188	0	56	30	121	0	53	858	100%	na	16%
Freeway / Expressway	Acceptable (LOS A-C)	37	0	5	39	20	0	0	0	5	49	72	0	10	238	58%	10%	5%
	Moderate (LOS D)	69	0	7	0	5	3	0	0	4	42	3	0	0	133	33%	9%	3%
	Severe (LOS E-F)	15	0	2	0	0	0	0	0	19	0	0	1	0	36	9%	3%	1%
	Total	122	0	14	39	25	3	0	0	28	91	75	1	10	407	100%	na	8%
Principal Arterial	Acceptable (LOS A-C)	97	16	27	65	34	48	107	0	29	107	101	3	2	635	43%	25%	12%
	Moderate (LOS D)	40	0	19	36	6	49	101	0	20	56	65	17	63	472	32%	31%	9%
	Severe (LOS E-F)	33	48	10	13	16	37	58	0	6	30	49	3	52	357	24%	29%	7%
	Total	170	64	57	114	56	134	266	0	54	194	215	23	117	1,464	100%	na	28%
Minor Arterial	Acceptable (LOS A-C)	103	7	157	77	89	54	145	1	97	91	355	17	19	1,212	57%	49%	23%
	Moderate (LOS D)	102	5	42	15	45	23	46	2	25	22	170	4	21	521	25%	34%	10%
	Severe (LOS E-F)	82	0	23	7	4	82	26	6	13	24	94	4	13	380	18%	31%	7%
	Total	286	12	222	98	139	159	217	9	136	137	619	26	54	2,113	100%	na	40%
Collector	Acceptable (LOS A-C)	37	25	13	20	14	16	0	3	3	86	84	4	13	318	78%	13%	6%
	Moderate (LOS D)	7	0	16	5	10	7	0	2	4	2	14	0	2	70	17%	5%	1%
	Severe (LOS E-F)	5	0	0	1	0	6	0	0	0	0	5	0	2	19	5%	2%	0%
	Total	49	25	28	27	25	28	0	5	7	89	103	4	17	407	100%	na	8%
Total	**Acceptable (LOS A-C)**	**285**	**48**	**202**	**201**	**157**	**123**	**284**	**4**	**170**	**337**	**618**	**24**	**43**	**2,497**	**48%**	**100%**	**48%**
	Moderate (LOS D)	**282**	**5**	**95**	**56**	**114**	**121**	**207**	**4**	**65**	**132**	**327**	**22**	**102**	**1,531**	**29%**	**100%**	**29%**
	Severe (LOS E-F)	**190**	**48**	**120**	**21**	**27**	**209**	**180**	**6**	**46**	**71**	**188**	**9**	**105**	**1,221**	**23%**	**100%**	**23%**
	Total	**757**	**101**	**417**	**278**	**298**	**453**	**671**	**15**	**280**	**540**	**1,133**	**54**	**250**	**5,249**	**100%**	**na**	**100%**

How Many of Today's Severely Congested Roadways Have Funded Plans for Improvement?

Figure 24 shows that 562 (12%) out of 4,666 CMS lane-miles in Hampton Roads are currently operating at severe congestion levels (LOS E-F) during the PM peak hour.

Have Funded Plans:
Out of those 562 severely congested lane-miles, only 121(22%) have funded plans for capacity improvements by 2026 as included in the *Hampton Roads Transportation Improvement Program (TIP FY 05-08)* or *2026 Regional Transportation Plan (RTP)*. Despite the improvements, 69 of the 121 lane-miles will still be operating at severe congestion levels in 2026 (shown on **Tables 11 and 12** on page 65). The remaining 52 of the 121 are expected to be operating at acceptable levels of service (LOS A-D) in 2026 as a result of the improvements.

Have No Funded Plans:
A total of 441 (78%) of the 562 currently severely congested lane-miles have no funded plans for capacity improvement. 75 of the 441 lane-miles without funded improvement plans are expected to operate at acceptable levels of service by 2026 as a result of reduced forecasted traffic (lower traffic volumes may be the result of new or widened facilities in that area). However, 366 of the 441 current severely congested lane-miles will remain severely congested through 2026 as a result of no future funded improvement plans.

It is important to note that capacity improvements are not the only solution for improving traffic operations at severely congested facilities; some failing roadway segments may be the result of factors that cannot be changed, such as a high number of signals per mile, heavy peak hour factors, and low speed limits. Some facilities may be improved by implementing better signal coordination timing plans or other ITS technologies that improve traffic flow. Adding a parallel route or widening an existing roadway, however, is oftentimes the most effective solution for improving a heavily traveled roadway if the right-of-way is available and the appropriate conditions are present.

The Hampton Roads region must carefully look at all roadway facilities that currently have or that are expected to have severe congestion by 2026 in order to improve levels of service. Each Hampton Roads jurisdiction is encouraged to continue developing congestion mitigation strategies for all projected failing roadway facilities as 1,221 (23%) out of 5,249 CMS lane-miles are expected to be operating at severe congestion levels by 2026 (Refer to detailed congestion analysis results included in **Appendices C** and **D** in the accompanying CMS technical document). Some of these roadway facilities may be operating at acceptable congestion levels today but are expected to become severely congested by 2026.

Figure 24 – Number of Today's Severely Congested Roadways in Hampton Roads that have Funded Plans for Improvement by 2026 (PM Peak Hour LOS)

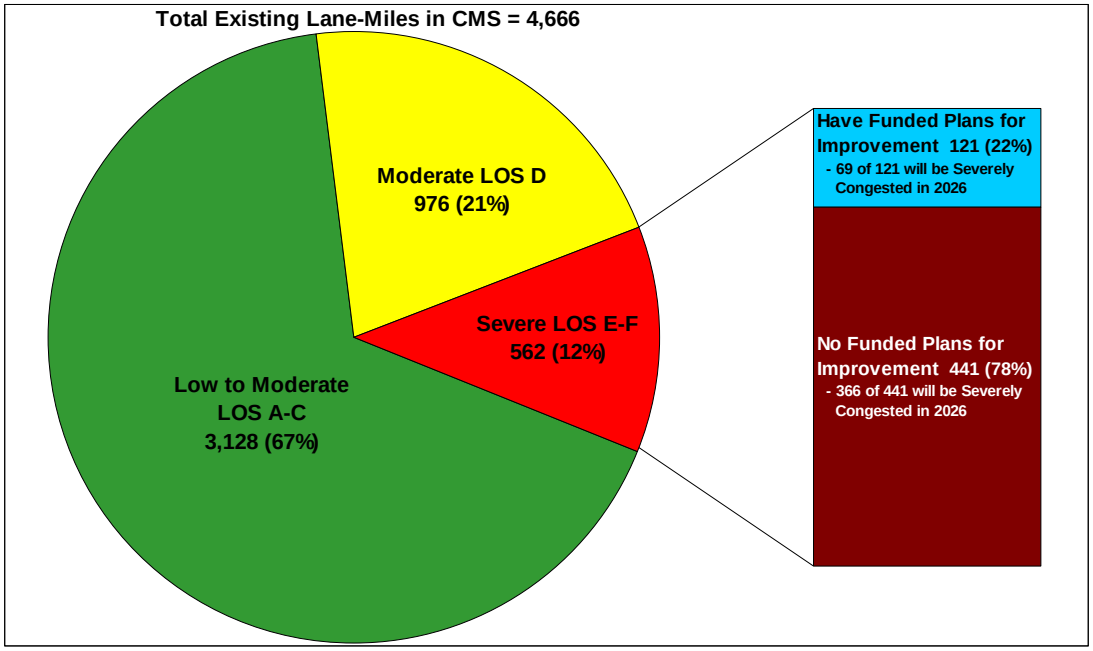

Total Existing Lane-Miles in CMS = 4,666
Moderate LOS D
976 (21%)
Severe LOS E-F
562 (12%)
Low to Moderate
LOS A-C
3,128 (67%)
Have Funded Plans for Improvement 121 (22%)
- 69 of 121 will be Severely Congested in 2026
No Funded Plans for Improvement 441 (78%)
- 366 of 441 will be Severely Congested in 2026

Table 11 – Severely Congested Roadways in both 2003 and 2026 with Funded Improvements (PM Peak Hour) – INTERSTATES AND FREEWAYS/EXPRESSWAYS

Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	'01-'03 Existing ADT (One-way)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS AM	2003 Existing LOS PM	2008 LOS AM	2008 LOS PM	Adjusted* 2026 Congestion Level (PM Peak Hour)
HAM	I-64	HRC PARKWAY	MAGRUDER BLVD	EB	0.77	65,819	122,792	2001	141,000	163,000	3	3	3+1	3+1	F	E	D	D	Severe
HAM				WB		56,973		2001			3	3	3+1	3+1	D	D	C	C	
HAM	I-64	MAGRUDER BLVD	MERCURY BLVD	EB	1.04	74,144	142,540	2001	164,000	187,000	3	3	3+1	3+1	F	E	F	D	Severe
HAM				WB		68,396		2001			3	3	3+1	3+1	F	D	E	D	
NN	I-64	FT EUSTIS BLVD	JEFFERSON AVE	EB	4.86	45,480	89,613	2001	104,000	145,000	2	2	2	3+1	D	E	F	F	Severe
NN				WB		44,133		2001			2	2	2	3+1	D	D	F	E	

Table 12 – Severely Congested Roadways in both 2003 and 2026 with Funded Improvements (PM Peak Hour) – ARTERIALS AND COLLECTORS

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS AM	2003 Existing LOS PM	2008 LOS AM	2008 LOS PM	Adjusted* 2026 Congestion Level (PM Peak Hour)
CHES	BATTLEFIELD BLVD	ALBEMARLE DR	WAYNE AVE	0.44	34,348	2002	38,000	43,000	2	2	4	4	F	F	D	D	Severe
CHES	DOMINION BLVD	CEDAR RD	BAINBRIDGE BLVD	0.93	28,411	2003	32,000	46,000	2	2	2	4	F	F	F	F	Severe
CHES	GEORGE WASHINGTON HWY	CEDAR RD @ HINTON AVE	MILL CREEK PKWY	0.10	22,857	2002	28,000	51,000	2	2	2	4	F	F	F	F	Severe
CHES	GREENBRIER PKWY	VOLVO PKWY	EDEN WAY	0.41	42,268	2002	45,000	45,000	5	5	6	6	D	E	D	D	Severe
CHES	MOUNT PLEASANT RD	CHESAPEAKE EXPRESSWAY	CENTERVILLE TNPK	2.43	17,950	2002	21,000	35,000	2	2	2	4	D	E	E	E	Severe
JCC	RTE 199	ECL WLMBG	HENRY ST/COLONIAL PKWY	1.73	29,353	2001	33,000	44,000	2	2	4	4	F	F	A	B	Severe
JCC	RTE 199	HENRY ST/COLONIAL PKWY	RTE 60/RTE 143/YORK CL	2.14	28,732	2001	31,000	46,000	2	2	4	4	E	E	B	B	Severe
NN	WARWICK BLVD	DEEP CREEK RD	J C MORRIS BLVD	1.43	50,025	2003	55,000	54,000	4	4	6	6	F	F	E	F	Severe
NOR	MILITARY HWY	LOWERY RD	PRIN ANNE RD/NORTHAMPTON BLVD	0.81	54,028	2003	58,000	86,000	4	4	4	8	E	F	F	F	Severe
NOR	MILITARY HWY	PRIN ANNE RD/NORTHAMPTON BLVD	I-64	0.52	51,231	2003	55,000	88,000	4	4	4	6	C	F	C	F	Severe
NOR	WESLEYAN DR	NORTHAMPTON BLVD	NCL VA BEACH	0.38	20,419	2003	21,000	35,000	2	2	2	4	F	F	F	F	Severe
VB	INDIAN RIVER RD	CENTERVILLE TNPK	KEMPSVILLE RD	0.72	67,533	2003	70,000	68,000	6	6	6	8	E	F	F	F	Severe
VB	ROSEMONT RD	PLAZA TRAIL	I-264	0.61	35,296	2003	36,000	54,000	4	4	4	6	E	E	E	E	Severe
VB	ROSEMONT RD	I-264	VA BEACH BLVD	0.14	56,000	2003	59,000	78,000	4	4	4	6	E	F	F	F	Severe
VB	WESLEYAN DR	NORFOLK CL	BAKER RD	0.43	20,419	2003	21,000	35,000	2	2	2	4	F	F	F	F	Severe
VB	WITCHDUCK RD	I-264	VA BEACH BLVD	0.51	45,265	2003	48,000	56,000	4	4	4	6	D	E	E	E	Severe
YC	GEORGE WASHINGTON HWY	HAMPTON HWY (RTE 134)	DENBIGH BLVD (RTE 173)	3.45	55,511	2003	57,000	70,000	4	4	4	6	F	F	F	F	Severe

Legend:

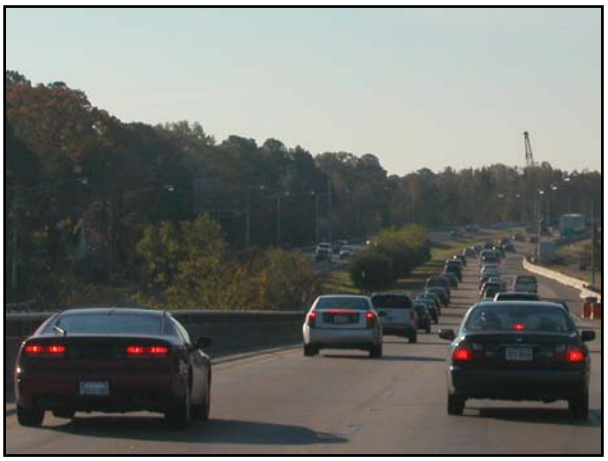
- Roadway capacity improvement made since last CMS update (2000)
- Programmed roadway capacity improvement by 2008 (TIP FY 05-08)
- Planned roadway capacity improvment by 2026 (2026 RTP)
- Level of Service D (Moderate Congestion)
- Level of Service E (Severe Congestion)
- Level of Service F (Severe Congestion)

*Note: Three levels of analysis are generally used in computing levels of service: (1) Generalized Planning (2) Conceptual Planning, and (3) Operational Analysis. Generalized planning uses generalized tables with many default values to calculate "in the ballpark" levels of service. The CMS study uses a conceptual planning level analysis for the 2003 Existing and 2008 travel conditions and is best suited for obtaining a solid determination of the LOS of a facility. Conceptual planning is more detailed than generalized planning, however it does not involve comprehensive operational analysis. An operational analysis may include factors such as intersection signal timing or turning movements into and out of driveways along a facility. The 2026 congestion levels (PM peak hour only) were determined as a part of the 2026 Regional Transportation Plan, which utilized a generalized planning level. Some 2026 congestion levels, however, were adjusted slightly according to the detailed data that became available from the conceptual planning level analysis for the 2003 Existing and 2008 travel conditions.

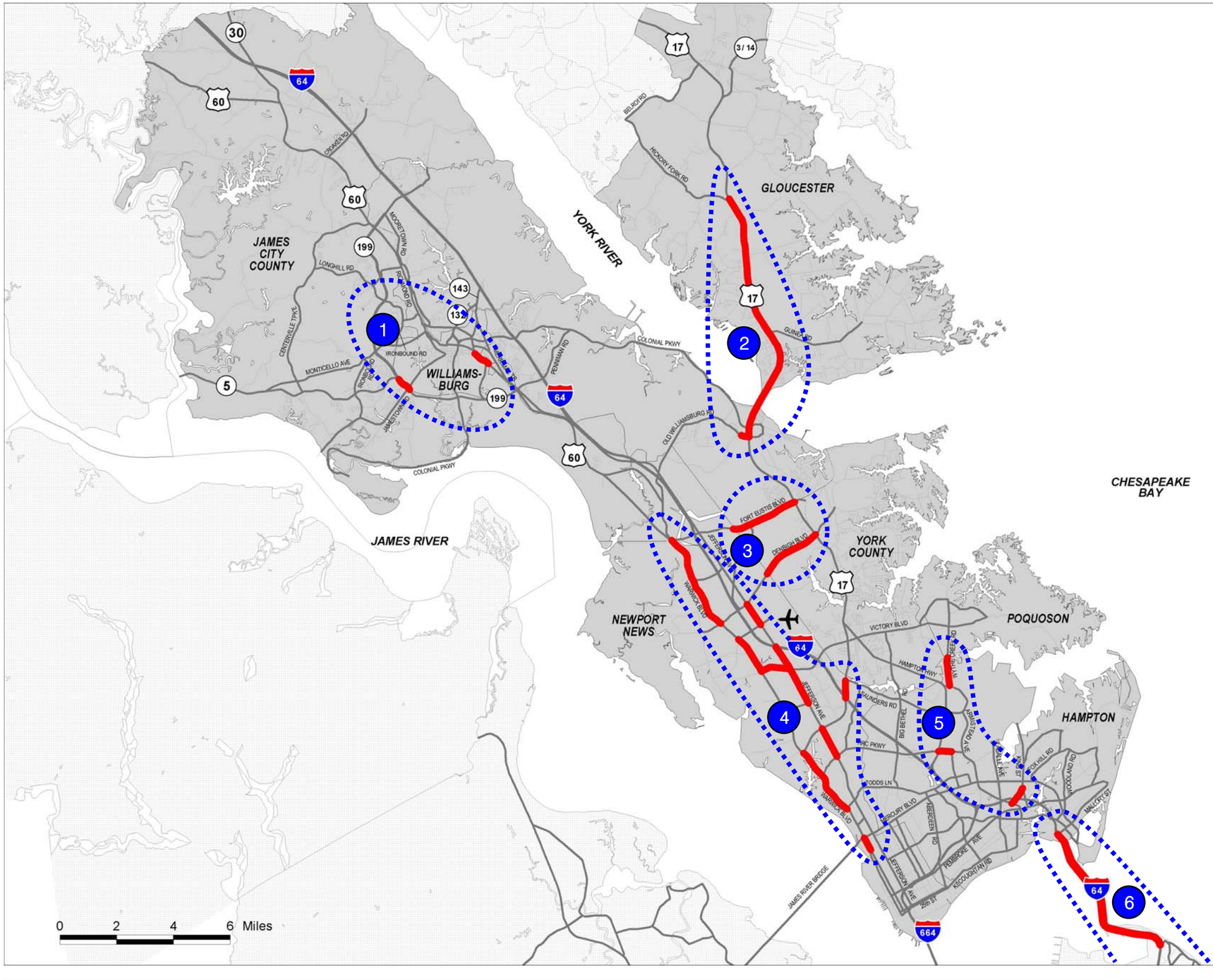
Traffic Data Sources: Virginia Department of Transportation and Hampton Roads Jurisdictions

Identification of Congested Areas

In the following section of this CMS report (CMS Mitigation Strategies and Evaluation), a detailed analysis will be made on the roadway facilities that are currently operating at severe conditions (PM peak hour) and are expected to remain congested through 2026 with no current funded plans for capacity improvement (366 lane-miles, as shown in Figure 24 on page 64). The congested roadways that meet these criteria will be grouped into "congested areas" for the analysis. For each "congested area", the probable causes of existing severe congestion (i.e. capacity deficiency, high number of signals per mile, heavy peak hour factors, etc.) will be identified for each roadway as well as CMS mitigation strategies and recommendations for improving levels of service. A list of these roadways is provided on **Maps 33 and 34** on pages 67 and 68 and in **Tables 13 and 14** on pages 69 to 72.



Westbound Interstate 64 traffic congestion approaching the Hampton Roads Bridge Tunnel



Map 33
Hampton Roads – Peninsula
"Congested Areas"
(PM Peak Hour)

Legend

Severely congested roadways in both 2003 and 2026 with no funded improvements

1 **CMS Congested Area -**
All roadways indicated in red have been divided into subareas, where the probable causes of existing congestion and CMS mitigation strategies are determined in the following section of this CMS report.

Prepared by: HRPDC, October 2004. Base map source: VDOT.

Map 34
Hampton Roads – Southside
"Congested Areas"
(PM Peak Hour)

Legend

Severely congested roadways in both 2003 and 2026 with no funded improvements

CMS Congested Area – All roadways indicated in red have been divided into subareas, where the probable causes of existing congestion and CMS mitigation strategies are determined in the following section of this CMS report.

0 3 6 9 Miles

Prepared by: HRPDC, October 2004. Base map source: VDOT.

Table 13 – Severely Congested Roadways in both 2003 and 2026 with No Funded Improvements (PM Peak Hour) – INTERSTATES AND FREEWAYS/EXPRESSWAYS

Juris Name	Cong Area ID	Facility Name	Segment From	Segment To	Dir	Length (Mi)	'01-'03 Existing ADT (One-way)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS AM	2003 Existing LOS PM	2008 LOS AM	2008 LOS PM	Adjusted* 2026 Congestion Level (PM Peak Hour)
CHES	10	I-64	I-464	GEORGE WASHINGTON HWY	EB	4.38	43,308	87,988	2003	102,000	95,000	2	2	2	2	E	F	F	F	Severe
CHES					WB		44,680		2003			2	2	2	2	F	E	F	F	
CHES	7	I-664	RTE 13 58 460	DOCK LANDING RD	EB	1.25	38,721	78,625	2003	87,000	89,000	2	2	2	2	F	E	F	F	Severe
CHES					WB		39,904		2003			2	2	2	2	D	E	D	F	
CHES	7	I-664	DOCK LANDING RD	PORTSMOUTH BLVD	EB	1.14	36,283	73,215	2003	85,000	88,000	2	2	2	2	E	E	F	F	Severe
CHES					WB		36,932		2003			2	2	2	2	D	D	D	F	
CHES	7	I-664	PORTSMOUTH BLVD	PUGHSVILLE RD	EB	2.06	36,099	72,407	2003	84,000	84,000	2	2	2	2	D	E	E	F	Severe
CHES					WB		36,308		2003			2	2	2	2	D	D	D	E	
CHES	12	CHESAPEAKE EXPWY (GBB)	MT PLEASANT RD	BATTLEFIELD BLVD (N OF GREAT BRIDGE)	NB	2.31	28,463	56,403	2002	63,000	88,000	2	2	2	2	D	B	E	C	Severe
CHES					SB		27,940		2002			2	2	2	2	A	E	B	F	
HAM	6	I-64/HRBT	MALLORY ST	NORFOLK CL	EB	3.69	46,288	91,225	2003	101,000	107,000	2	2	2	2	F	F	F	F	Severe
HAM					WB		44,937		2003			2	2	2	2	E	F	F	F	
NOR	6	I-64/HRBT	HAMPTON CL	OCEAN VIEW AVE	EB	0.19	46,288	91,225	2003	101,000	107,000	2	2	2	2	F	F	F	F	Severe
NOR					WB		44,937		2003			2	2	2	2	E	F	F	F	
NOR	6	I-64	OCEAN VIEW AVE	4TH VIEW AVE	EB	1.82	46,288	91,225	2003	101,000	104,000	2	2	2	2	D	D	E	D	Severe
NOR					WB		44,937		2003			2	2	2	2	E	F	F	F	
NOR	6	I-64	BAY AVE	GRANBY AVE	EB	1.60	51,024	98,260	2003	108,000	100,000	2	2	2	2	E	E	F	F	Severe
NOR					WB		47,236		2003			2	2	2	2	D	D	D	D	
NOR	6	I-64	GRANBY ST	I-564/LITTLE CREEK RD	EB	0.21	51,024	98,260	2003	108,000	96,000	2	2	2	2	E	E	F	F	Severe
NOR					WB		47,236		2003			2	2	2	2	D	D	D	D	
NOR		I-64 HOV	MILITARY HWY	NORTHAMPTON BLVD	HO		22,691		2003			2	2	2	2	A	A	A	A	
NOR	11	I-64	MILITARY HWY	NORTHAMPTON BLVD	EB	1.07	72,174	171,696	2003	189,000	157,000	3	3	3	3	D	E	E	E	Severe
NOR		I-64	MILITARY HWY	NORTHAMPTON BLVD	WB		76,831		2003			3	3	3	3	F	D	F	D	
NOR		I-64 HOV	NORTHAMPTON BLVD	I-264	HO		17,201		2003			2	2	2	2	A	A	A	A	
NOR	11	I-64	NORTHAMPTON BLVD	I-264	EB	2.12	74,259	178,304	2003	196,000	169,000	3	3	3	3	D	E	E	E	Severe
NOR		I-64	NORTHAMPTON BLVD	I-264	WB		86,844		2003			4	4	4	4	D	D	D	D	
NOR		I-64 HOV	I-264	VA BEACH CL	HO		7,527		2003			2	2	2	2	A	A	A	A	
NOR	11	I-64	I-264	VA BEACH CL	EB	0.93	67,699	142,018	2003	165,000	151,000	3	3	3	3	D	F	D	F	Severe
NOR		I-64	I-264	VA BEACH CL	WB		66,792		2003			3	3	3	3	E	D	F	D	
NOR	9	I-264/DOWNTOWN TUNNEL	PORTSMOUTH CL	I-464	EB	0.40	48,960	101,429	2003	108,000	128,000	2	2	2	2	F	F	F	F	Severe
NOR					WB		52,469		2003			2	2	2	2	F	F	F	F	
NOR	9	I-264	I-464	WATERSIDE/CITY HALL/TIDEWATER	EB	0.72	57,301	121,818	2003	131,000	142,000	4	4	4	4	F	D	F	E	Severe
NOR					WB		64,517		2003			4	4	4	4	F	F	F	F	
NOR	14	I-264	I-64	NEWTOWN RD/WCL VA. BEACH	EB	0.74	119,100	241,927	2003	260,000	260,000	5+1	5+1	5+1	5+1	D	E	D	E	Severe
NOR					WB		122,827		2003			5+1	5+1	5+1	5+1	F	D	F	E	
PORT	9	I-264/DOWNTOWN TUNNEL	EFFINGHAM ST	NORFOLK CL	EB	0.72	48,960	101,429	2003	108,000	128,000	2	2	2	2	F	F	F	F	Severe
PORT					WB		52,469		2003			2	2	2	2	F	F	F	F	
VB	14	I-264	NEWTOWN RD/ECL NORFOLK	WITCHDUCK RD	EB	1.47	105,518	215,046	2003	232,000	216,000	4+1	4+1	4+1	4+1	D	E	D	F	Severe
VB					WB		109,528		2003			4+1	4+1	4+1	4+1	F	E	F	E	
VB	14	I-264	WITCHDUCK RD	INDEPENDENCE BLVD	EB	1.27	110,474	218,988	2003	236,000	213,000	4+1	4+1	4+1	4+1	D	E	E	F	Severe
VB					WB		108,514		2003			4+1	4+1	4+1	4+1	F	D	F	E	
VB	11	I-64	NORFOLK CL	INDIAN RIVER RD	EB	1.57	71,462	142,018	2003	165,000	151,000	3+1	3+1	3+1	3+1	D	F	D	F	Severe
VB					WB		70,556		2003			3+1	3+1	3+1	3+1	E	D	F	D	

Table 14 – Severely Congested Roadways in both 2003 and 2026 with No Funded Improvements (PM Peak Hour) – ARTERIALS AND COLLECTORS

Juris Name	Cong Area ID	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
														AM	PM	AM	PM	
CHES	12	BATTLEFIELD BLVD	INDIAN CREEK RD	CENTERVILLE TNPK	1.54	14,729	2002	15,000	18,000	2	2	2	2	D	E	D	E	Severe
CHES	12	BATTLEFIELD BLVD	CENTERVILLE TNPK	HILLCREST PKWY	2.05	16,294	2002	17,000	28,000	2	2	2	2	E	E	E	E	Severe
CHES	12	CENTERVILLE TNPK	ETHRIDGE MANOR BLVD	MT PLEASANT RD	2.15	12,504	2002	18,000	20,000	2	2	2	2	D	E	E	E	Severe
CHES	12	CENTERVILLE TNPK	MT PLEASANT RD	BUTTS STATION RD	1.27	15,979	2002	19,000	21,000	2	2	2	2	D	E	E	E	Severe
CHES	10	DOMINION BLVD	BAINBRIDGE BLVD	GREAT BRIDGE BLVD	1.62	26,440	2002	30,000	36,000	2	2	2	2	F	E	F	F	Severe
CHES	10	GEORGE WASHINGTON HWY	MILL CREEK PKWY	WILLOWOOD DR	0.80	22,857	2002	28,000	49,000	2	2	2	2	F	F	F	F	Severe
CHES	10	GREAT BRIDGE BLVD	I-64	DOMINION BLVD	0.26	11,912	2002	12,000	20,000	2	2	2	2	E	E	E	E	Severe
CHES	10	GREENBRIER PKWY	EDEN WAY	I-64	0.69	78,141	2002	81,000	82,000	6	6	6	6	F	F	F	F	Severe
CHES	10	MILITARY HWY	I-464	CAMPOSTELLA RD	0.64	26,818	2002	29,000	32,000	4	4	4	4	D	E	D	E	Severe
CHES	10	MILITARY HWY	CAMPOSTELLA RD	BATTLEFIELD BLVD	0.60	28,579	2002	30,000	31,000	4	4	4	4	C	E	D	F	Severe
CHES	7	TYRE NECK RD	SILVERWOOD BLVD	PORTSMOUTH CL	0.15	12,400	2003	13,000	14,000	2	2	2	2	D	E	D	E	Severe
CHES	7	WESTERN BRANCH BLVD	TAYLOR RD	PORTSMOUTH CL	0.32	23,758	2003	24,000	26,000	4	4	4	4	D	E	D	E	Severe
GLO	2	RTE 17 (COLEMAN BRIDGE)	YORK CL	RTE 216 (GUINEA RD)	2.96	34,070	2003	39,000	43,000	4	4	4	4	D	F	F	F	Severe
GLO	2	RTE 17	RTE 216 (GUINEA RD)	RTE 614 E (FEATHERBED LANE)	4.29	36,168	2003	41,000	43,000	4	4	4	4	B	F	D	F	Severe
HAM	5	HRC PARKWAY	MAGRUDER BLVD	COLISEUM DR	0.45	38,379	2003	33,000	37,000	4	4	4	4	F	F	D	D	Severe
HAM	5	RIP RAP RD	ARMISTEAD AVE	I-64	0.20	10,084	2003	12,000	11,000	2	2	2	2	D	F	D	F	Severe
HAM	5	RIP RAP RD	I-64	KING ST	0.46	10,084	2003	15,000	15,000	2	2	2	2	D	E	E	F	Severe
HAM	5	WYTHE CREEK RD	ARMISTEAD AVE	POQUOSON CL	1.00	16,714	2002	18,000	24,000	2	2	2	2	F	F	F	F	Severe
JCC	1	RTE 199	JOHN TYLER HWY (RTE 5)	WCL WLMBG	0.23	29,427	2001	31,000	41,000	4	4	4	4	D	E	D	E	Severe
NN	4	J CLYDE MORRIS BLVD	I-64	HARPERSVILLE RD	0.60	41,480	2003	44,000	51,000	4	4	4	4	F	F	F	F	Severe
NN	4	JEFFERSON AVE	DENBIGH BLVD	BLAND BLVD	0.87	58,750	2003	61,000	64,000	6	6	6	6	C	E	D	F	Severe
NN	4	JEFFERSON AVE	I-64	OYSTER POINT RD	0.95	58,505	2003	64,000	67,000	6	6	6	6	D	E	E	F	Severe
NN	4	JEFFERSON AVE	OYSTER POINT RD	MUELLER LA	0.83	57,350	2003	64,000	60,000	6	6	6	6	D	E	E	F	Severe
NN	4	JEFFERSON AVE	MUELLER LA	MIDDLE GROUND BLVD	0.45	57,350	2003	64,000	60,000	6	6	6	6	D	E	E	F	Severe
NN	4	JEFFERSON AVE	J CLYDE MORRIS BLVD	HARPERSVILLE RD	1.12	56,897	2003	64,000	58,000	6	6	6	6	C	E	D	F	Severe
NN	4	OYSTER POINT RD	WARWICK BLVD	JEFFERSON AVE	1.04	46,330	2003	50,000	38,000	4	4	4	4	F	F	F	F	Severe
NN	4	WARWICK BLVD	FT EUSTIS BLVD	SNIDOW BLVD	1.86	38,434	2003	43,000	44,000	4	4	4	4	E	F	E	F	Severe
NN	4	WARWICK BLVD	SNIDOW BLVD	DENBIGH BLVD	1.66	47,554	2003	50,000	42,000	4	4	4	4	F	F	F	F	Severe
NN	4	WARWICK BLVD	BLAND BLVD	OYSTER POINT RD	1.39	44,912	2003	48,000	51,000	4	4	4	4	D	F	D	F	Severe
NN	4	WARWICK BLVD	J C MORRIS BLVD	HARPERSVILLE RD	1.07	34,109	2003	36,000	50,000	5	5	5	5	C	E	D	F	Severe
NN	4	WARWICK BLVD	HARPERSVILLE RD	MAIN ST	1.49	38,981	2003	41,000	45,000	4	4	4	4	D	F	D	F	Severe
NN	4	WARWICK BLVD	MERCURY BLVD	HUNTINGTON AVE	0.50	30,991	2003	32,000	29,000	6	6	6	6	F	F	F	F	Severe
NOR	8	21ST ST	COLLEY AVE	LLEWELLYN ST	0.45	14,686	2003	15,000	17,000	2	2	2	2	D	E	D	E	Severe
NOR	8	21ST ST	LLEWELLYN ST	MONTICELLO AVE	0.27	10,202	2003	11,000	13,000	2	2	2	2	E	E	E	E	Severe
NOR	9	BOUSH ST	BUTE STREET	BRAMBLETON AVE	0.09	28,198	2000	32,000	35,000	4	4	4	4	F	F	F	F	Severe

Table 14 – Severely Congested Roadways in both 2003 and 2026 with No Funded Improvements (PM Peak Hour) – ARTERIALS AND COLLECTORS cont.

Juris Name	Cong Area ID	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
														AM	PM	AM	PM	
NOR	9	BRAMBLETON AVE	BOUSH ST	MONTICELLO AVE	0.18	36,426	2003	38,000	39,000	6	6	6	6	E	F	F	F	Severe
NOR	9	BRAMBLETON AVE	MONTICELLO AVE	ST PAULS BLVD	0.12	36,426	2003	40,000	40,000	5	5	5	5	E	F	F	F	Severe
NOR	9	CAMPOSTELLA RD	WILSON RD	SE CAMPOSTELLA BR	0.33	43,395	2003	44,000	42,000	6	6	6	6	D	F	D	F	Severe
NOR	9	CAMPOSTELLA RD	SE CAMPOSTELLA BR	KIMBALL TERR	0.44	43,395	2003	44,000	42,000	6	6	6	6	D	F	D	F	Severe
NOR	9	CAMPOSTELLA RD	KIMBALL TERR	I-264	0.10	43,395	2003	44,000	41,000	6	6	6	6	D	F	D	F	Severe
NOR	8	COLLEY AVE	BRAMBLETON AVE	OLNEY RD	0.21	18,211	2003	20,000	27,000	4	4	4	4	E	E	E	E	Severe
NOR	8	COLLEY AVE	OLNEY RD	PRINCESS ANNE RD	0.39	14,704	2003	15,000	16,000	4	4	4	4	D	E	D	E	Severe
NOR	8	COLLEY AVE	PRINCESS ANNE RD	21ST ST	0.40	16,524	2003	17,000	20,000	2	2	2	2	D	E	D	E	Severe
NOR	8	COLLEY AVE	21ST ST	26TH ST	0.24	15,483	2003	16,000	19,000	4	4	4	4	E	E	E	E	Severe
NOR	8	COLLEY AVE	26TH ST	27TH ST	0.05	15,483	2003	16,000	20,000	4	4	4	4	E	E	E	E	Severe
NOR	8	COLLEY AVE	27TH ST	38TH ST	0.34	14,476	2003	15,000	18,000	2	2	2	2	E	E	E	E	Severe
NOR	9	DUKE ST	OLNEY RD	BRAMBLETON AVE	0.19	9,500	2003	10,000	10,000	2	2	2	2	D	E	E	F	Severe
NOR	8	GRANBY ST	CHURCH ST	38TH ST	0.36	24,293	2003	25,000	24,000	4	4	4	4	E	F	E	F	Severe
NOR	8	HAMPTON BLVD	BRAMBLETON AVE	PRINCESS ANNE RD	0.40	38,698	2003	40,000	47,000	4	4	4	4	F	F	F	F	Severe
NOR	8	HAMPTON BLVD	PRINCESS ANNE RD	21ST ST	0.48	38,698	2003	40,000	43,000	4	4	4	4	F	F	F	F	Severe
NOR	8	HAMPTON BLVD	21ST ST	26TH ST	0.21	41,819	2003	43,000	45,000	4	4	4	4	F	F	F	F	Severe
NOR	8	HAMPTON BLVD	26TH ST	27TH ST	0.05	41,048	2003	43,000	39,000	4	4	4	4	F	F	F	F	Severe
NOR	8	HAMPTON BLVD	27TH ST	38TH ST	0.18	41,048	2003	43,000	47,000	4	4	4	4	F	F	F	F	Severe
NOR	8	HAMPTON BLVD	38TH ST	JAMESTOWN CRESCENT	1.32	40,780	2003	42,000	42,000	6	6	6	6	E	E	E	E	Severe
NOR	8	HAMPTON BLVD	LITTLE CREEK RD	INT TERM BLVD	0.18	37,387	2003	39,000	44,000	6	6	6	6	E	E	E	E	Severe
NOR	11	JOHNSTONS RD	CHESAPEAKE BLVD	MILITARY HWY	0.36	13,730	2003	14,000	12,000	2	2	2	2	D	E	D	E	Severe
NOR	14	KEMPSVILLE RD	NEWTOWN RD	VA BEACH BLVD	1.00	23,257	2003	24,000	30,000	4	4	4	4	F	F	F	F	Severe
NOR	6	LITTLE CREEK RD	GRANBY ST	I-64	0.35	38,860	2003	39,000	37,000	4	4	4	4	E	E	E	E	Severe
NOR	9	MIDTOWN TUNNEL	PORTSMOUTH CL	BRAMBLETON AVE	0.59	35,309	2003	38,000	64,000	2	2	2	2	F	F	F	F	Severe
NOR	11	MILITARY HWY	I-64	AZALEA GARDEN RD	0.65	31,651	2003	33,000	37,000	4	4	4	4	D	E	D	E	Severe
NOR	14	NEWTOWN RD	KEMPSVILLE RD	I-264	0.38	32,264	2003	34,000	35,000	4	4	4	4	E	E	E	E	Severe
NOR	14	NEWTOWN RD	I-264	VA BEACH BLVD	0.66	40,196	2003	42,000	47,000	4	4	4	4	E	F	E	F	Severe
NOR	11	NORTHAMPTON BLVD	I-64	WESLEYAN DR/VA BEACH CL	0.34	92,726	2003	100,000	112,000	8	8	8	8	F	F	F	F	Severe
NOR	11	NORVIEW AVE	I-64	MILITARY HWY	0.47	30,018	2003	32,000	29,000	4	4	4	4	D	E	E	E	Severe
NOR	11	ROBIN HOOD RD	ELLSMERE AVE	MILITARY HWY	0.33	14,020	2003	15,000	16,000	2	2	2	2	F	E	F	F	Severe
NOR	9	SOUTH MAIN ST	I-464	BAINBRIDGE BLVD	0.07	1,300	2002	2,000	5,000	2	2	2	2	E	E	E	E	Severe
NOR	9	SOUTH MAIN ST	BAINBRIDGE BLVD	LIBERTY ST	0.21	1,300	2002	2,000	5,000	2	2	2	2	E	E	E	E	Severe
NOR	9	SOUTH MAIN ST	LIBERTY ST	BERKLEY AVE	0.06	2,300	2002	3,000	9,000	2	2	2	2	E	E	E	E	Severe
NOR	9	STATE ST	LIBERTY ST	BERKLEY AVE	0.07	3,704	2003	4,000	7,000	2	2	2	2	E	E	E	E	Severe
PORT	7	CHURCHLAND BLVD	W NORFOLK RD	TYRE NECK RD	0.12	13,202	2003	12,000	9,000	4	4	4	4	E	E	E	E	Severe
PORT	7	CHURCHLAND BLVD	TYRE NECK RD	HIGH ST	0.30	13,834	2003	12,000	10,000	4	4	4	4	E	E	E	E	Severe

Table 14 – Severely Congested Roadways in both 2003 and 2026 with No Funded Improvements (PM Peak Hour) – ARTERIALS AND COLLECTORS cont.

Juris Name	Cong Area ID	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
														AM	PM	AM	PM	
PORT	9	FREDERICK BLVD	I-264	TURNPIKE RD	0.36	43,929	2003	46,000	48,000	4	4	4	4	E	F	F	F	Severe
PORT	9	GEORGE WASHINGTON HWY	CHESAPEAKE CL	VICTORY BLVD	0.17	30,183	2003	32,000	36,000	4	4	4	4	D	F	E	F	Severe
PORT	9	MIDTOWN TUNNEL	MLK FWY/WESTERN FREEWAY	NORFOLK CL	0.95	35,309	2003	38,000	64,000	2	2	2	2	F	F	F	F	Severe
PORT	7	TOWN POINT RD	TWIN PINES RD	WESTERN FREEWAY	0.11	30,426	2003	30,000	30,000	4	4	4	4	E	E	E	E	Severe
PORT	7	TYRE NECK RD	CHURCHLAND BLVD	WEST NORFOLK RD	0.07	3,593	2003	4,000	6,000	2	2	2	2	E	E	E	E	Severe
PORT	7	WESTERN BRANCH BLVD	CHESAPEAKE CL	TYRE NECK RD	0.21	23,758	2003	24,000	23,000	4	4	4	4	D	E	D	E	Severe
VB	15	DAM NECK RD	LONDON BRIDGE EXTENDED	LONDON BRIDGE RD	0.86	49,046	2003	52,000	36,000	4	4	4	4	C	F	C	F	Severe
VB	14	INDEPENDENCE BLVD	HOLLAND RD	BAXTER RD	0.80	80,128	2003	85,000	72,000	8	8	8	8	C	F	D	F	Severe
VB	14	INDEPENDENCE BLVD	BAXTER RD	I-264	0.23	86,008	2003	91,000	92,000	8	8	8	8	D	F	D	F	Severe
VB	14	INDEPENDENCE BLVD	I-264	VA BEACH BLVD	0.67	81,851	2003	88,000	89,000	8	8	8	8	D	F	D	F	Severe
VB	14	INDEPENDENCE BLVD	VA BEACH BLVD	JEANNE ST	0.28	53,472	2003	58,000	58,000	8	8	8	8	E	E	E	E	Severe
VB	13	INDEPENDENCE BLVD	HAYGOOD RD	NORTHAMPTON BLVD	1.77	43,743	2003	45,000	43,000	4	4	4	4	C	F	C	F	Severe
VB	11	INDIAN RIVER RD	I-64	CENTERVILLE TNPK	0.57	78,122	2003	79,000	99,000	8	8	8	8	D	F	D	F	Severe
VB	14	LYNNHAVEN PKWY	POTTERS RD	I-264	0.20	77,148	2003	80,000	47,000	6	6	6	6	E	F	E	F	Severe
VB	11	MILITARY HWY	CHESAPEAKE CL	PROVIDENCE RD	0.16	36,344	2002	37,000	40,000	6	6	6	6	D	F	D	F	Severe
VB	14	PLAZA TRAIL	ROSEMONT RD	I-264	0.94	12,146	2003	14,000	12,000	2	2	2	2	D	E	D	E	Severe
VB	15	PRINCESS ANNE RD	HOLLAND RD	CROSSROAD RD	1.76	25,012	2003	29,000	20,000	2	2	2	2	E	E	E	F	Severe
VB	15	ROSEMONT RD	FACULTY DRIVE	LYNNHAVEN PKWY	0.58	17,613	2003	19,000	16,000	2	2	2	2	C	F	C	F	Severe
VB	13	SHORE DRIVE	NORTHAMPTON BLVD	N GREAT NECK RD	3.47	41,252	2003	44,000	42,000	4	4	4	4	D	F	F	F	Severe
WMB	1	ROUTE 199	JAMES CITY CL (WEST)	JAMESTOWN RD	0.24	29,427	2001	31,000	41,000	4	4	4	4	E	E	E	E	Severe
WMB	1	ROUTE 199	JAMESTOWN RD	JAMES CITY CL (EAST)	0.16	29,353	2001	33,000	43,000	4	4	4	4	E	E	E	E	Severe
WMB	1	YORK ST	PAGE ST	JAMES CITY CL	0.60	17,894	2001	20,000	18,000	2	2	2	2	D	E	D	E	Severe
YC	3	DENBIGH BLVD	NEWPORT NEWS CL	ROUTE 17	2.18	15,857	2003	17,000	18,000	2	2	2	2	D	E	D	E	Severe
YC	3	FORT EUSTIS BLVD	NEWPORT NEWS CL	ROUTE 17	2.36	16,606	2001	18,000	22,000	2	2	2	2	E	E	E	E	Severe
YC	2	GEORGE WASHINGTON HWY	GOOSLEY RD (RTE 238)	GLOUCESTER CL (COLEMAN BRIDGE)	1.06	38,019	2001	42,000	43,000	4	4	4	4	F	F	F	F	Severe
YC	2	GOOSLEY RD	CRAWFORD RD	ROUTE 17	0.30	6,359	2001	7,000	10,000	2	2	2	2	C	E	C	E	Severe

Legend:

- Level of Service D (Moderate Congestion)
- Level of Service E (Severe Congestion)
- Level of Service F (Severe Congestion)

*Note: Three levels of analysis are generally used in computing levels of service: (1) Generalized Planning (2) Conceptual Planning, and (3) Operational Analysis. Generalized planning uses generalized tables with many default values to calculate "in the ballpark" levels of service. The CMS study uses a conceptual planning level analysis for the 2003 Existing and 2008 travel conditions and is best suited for obtaining a solid determination of the LOS of a facility. Conceptual planning is more detailed than generalized planning, however it does not involve comprehensive operational analysis. An operational analysis may include factors such as intersection signal timing or turning movements into and out of driveways along a facility. The 2026 congestion levels (PM peak hour only) were determined as a part of the 2026 Regional Transportation Plan, which utilized a generalized planning level. Some 2026 congestion levels, however, were adjusted slightly according to the detailed data that became available from the conceptual planning level analysis for the 2003 Existing and 2008 travel conditions.

Traffic Data Sources: Virginia Department of Transportation and Hampton Roads Jurisdictions

CMS MITIGATION STRATEGIES AND EVALUATION

As defined in the previous section, any roadway facility that is currently operating at severe conditions (PM peak hour) and is expected to remain congested through 2026 with no current funded plans for capacity improvement was identified and assigned to one of fifteen total "congested areas" in Hampton Roads (See Maps 33 and 34). The next step was to determine why the congested facility is currently failing in order to gain a better understanding of existing problems. This information also provides valuable insight toward developing congestion mitigation measures for those congested facilities. To further facilitate evaluation of the congested areas, a "toolbox" of general congestion mitigation measures has been defined (**Table 15**). For each congested area (1-15), a package of potential CMS mitigation strategies has been determined for all congested roadways within that area and is shown on pages 75 to 89.

Table 15 – Congestion Mitigation Strategy "Toolbox" [4]

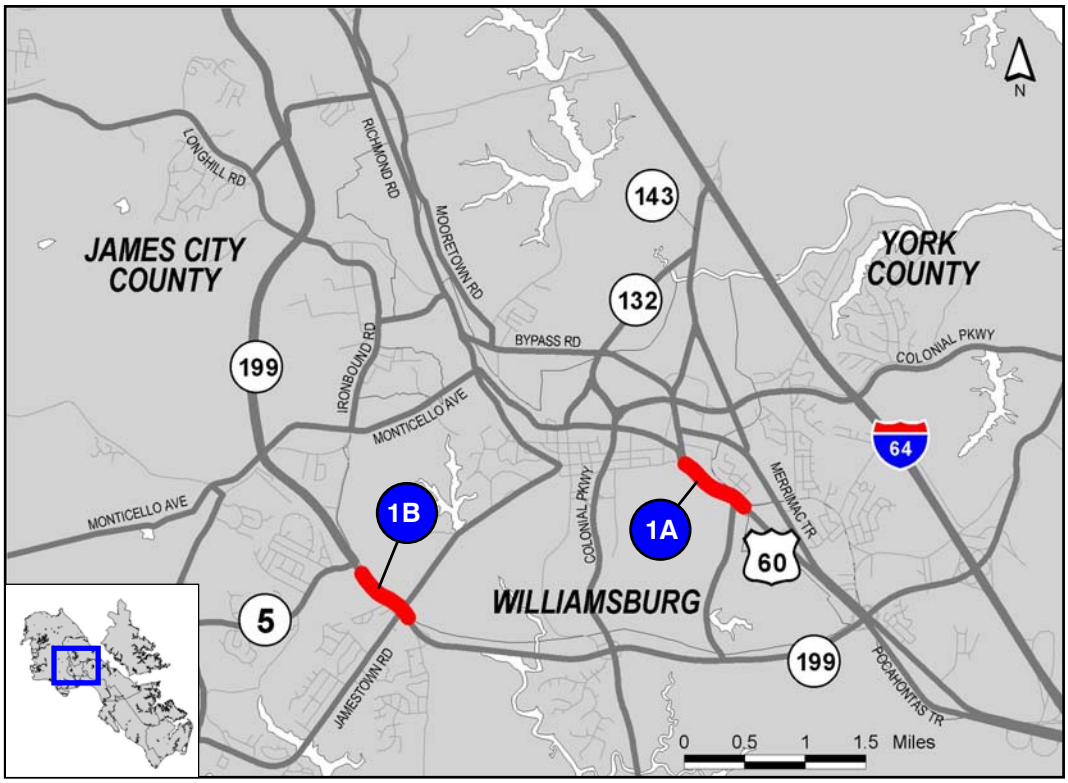
Strategy #1 Eliminate Person Trips or Reduce VMT	**Growth Management/Activity Centers**	
	1-1 Land Use Policies/Regulations	Encourage more efficient patterns of commercial or residential development in defined areas. Specific land use policies and/or regulations that could significantly decrease both the total number of trips and overall trip lengths, as well as making transit use, bicycling and walking more viable include, but are not limited to the following: · Encouraging development in existing centers and/or communities (i.e. infill development) · Discouraging development outside of designated growth areas · Promoting higher density and mixed uses in proximity to existing or planned transit service · Establishing a policy for new and existing subdivisions to include sidewalks, bike paths, and transit facilities where appropriate
	Congestion/Value Pricing	
	1-2 Road User Fees/HOT Lanes	Includes area-wide pricing fees, time-of-day/congestion pricing and tolls. Most appropriately applied to freeways and expressways and requires infrastructure to collect user fees. High Occupancy Toll (HOT) lanes – combines HOV and pricing strategies by allowing single occupancy vehicles to gain access to HOV lanes by paying a toll.
	1-3 Parking Fees	Market-based strategy designed to modify mode choice by imposing higher costs for parking private automobiles. Most appropriately applied to parking facilities in urban environments.
	Transportation Demand Management	
	1-4 Telecommuting	Encouraging employers to consider telecommuting options full- or part-time to reduce travel demand.
	1-5 Employee Flextime Benefits/Compressed Work Week	Encouraging employers to consider allowing employees to maintain a flexible schedule - thus allowing the employee the option to commute during non-peak hours.
Strategy #2 Shift Trips from Auto to Other Modes	**Public Transit Capital Improvements**	
	2-1 Exclusive Right-of-Way - New Rail Service	Includes heavy rail, commuter rail, and light rail services. Most appropriately applied in a dense context serving a major employment center.
	2-2 Exclusive Right-of-Way - New Bus Facilities	Includes Busway, Bus Only Lanes, and Bus Bypass Ramps. Most appropriately applied to freeways and expressways with hight existing transit ridership rates.
	2-3 Fleet Expansion	Expansion of existing rail and/or bus capacity to provide increased service.
	2-4 Improved Intermodal Connections	Improve the efficiency and functionality of intermodal connectors where several modes of transportation are physically and operationally integrated.
	2-5 Improved/Increased Park & Ride Facilites & Capital Improvements	Identifying any facilities that are in any phase of planning along corridors.
	Public Transit Operational Improvements	
	2-6 Service Expansion	Improvements to the service frequency and service area provided in throughout the region.
	2-7 Traffic Signal Preemption	Improve traffic flow for transit vehicles traveling through signalized intersections.
	2-8 Transit Fare Reductions Plan/Reduced Rate of Fare	Includes system-wide reducitons, off-peak discounts and deep discount programs.
	2-9 Transit Information Systems	Improved in-vehicle and station information systems to improve the dissemination of transit-related information to the user.
	Bicycle and Pedestrian Modes	
	2-10 Improved/Expanded Bicycle Network	Includes on-road facilities, pathways, and greenways.
	2-11 Bicycle Storage Systems	Providing safe and secure places for bicyclists to store their bicycles.
	2-12 Improved/Expanded pedestrian Network	Includes sidwalks, pedestrian signals and signs, crosswalks, overpasses/tunnels, greenways, and walkways.

Table 15 – Congestion Mitigation Strategy "Toolbox" cont.

Strategy #3 Shift Trips from SOV to HOV	**Encouraging High Occupancy Vehicle (HOV) Use**	
	3-1 Add HOV Lanes	Most appropriate use of freeways and expressways.
	3-2 HOV Toll Savings	Preferential pricing to multi-occupant vehicles. Needs infrastructure to administer toll collection.
	Transportation Demand Management	
	3-3 Rideshare Matching Services	Providing carpool/vanpool matching and ridesharing infromation resources and services
	3-4 Vanpool/Employer Shuttle Program	Organizing groups of commuters to travel together in a passenger van or employer-provided shuttle on a regular basis.
	3-5 Employer Trip Reduction Program	Organizing groups that offer tax incentives or transit subsidies on a regular basis.
	3-6 Parking Management	Preferential parking is a low-cost incentive that can be used to encourage the utilization of alternative cummute modes, such as carpooling and vanpooling.
Strategy #4 Improve Roadway Operations	**Traffic Operational Improvements**	
	4-1 Intersection Geometric Improvements	Improvements to intersection geometrics to improve overall efficiency and operation.
	4-2 Intersection Channelization	Infrastructure improvements that provide physical separation or delineation of conflicting traffic movements.
	4-3 Intersection Turn Restrictions	Providing intersections turn restrictions to reduce conficts and increase overall intersection performance.
	4-4 Intersection Signalization Improvements	Improving signal operations through re-timing signal phases, adding signal actuation, etc.
	4-5 Coordinated Intersections Signals	Improve traffic signal progression along identified corridors.
	4-6 Traffic Calming	A variety of techniques used to reduce traffic speeds and increase safety.
	4-7 Intelligent Transportation Systems/Smart Traffic Centers (ITS)	Utilizing the latest technology to assist in congestion mitigation, information dissemination, and traffic planning efforts. Examples include road sensors, video detection, changeable message signs, SMART Tag (electronic toll), 511 Traveler service, and Smart Travel
	4-8 Reversible Lanes	Reversible Lane Systems enable the maximum use of roadways with heavy directional distribution of traffic by changing the direction of the individual travel lanes. Lane control signs, displayed well in advance of a merge, are often used to close lanes with lower traffic volume and open additional lanes for higher volume.
	Freeway Operations & Management	
	4-9 Incident Management, detection, Response & Clearance	Utilize traveler radio, travel alert notification (via e-mail, fax, etc.), and general public outreach to enhance incident-related information dissemination.
	4-10 Elimination of Bottlenecks	Eliminating high-traffic areas where one or more travel lane(s) is dropped.
	4-11 Ramp Metering	Metering vehicular access to a freeway during peak periods to optimize the operational capacity of the freeway.
	Access Management	
	4-12 Access Control	Reduction or elimination of "side friction", especially from driveways via traffic engineering, regulatory techniques, and purchase of property rights.
	4-13 Median Control	Reduction of centerline and "side friction", via traffic engineering and regulatory techniques.
	4-14 Frontage Roads	Auxillary roadways which provide a separated lane or lanes for access to abutting land uses along freeways or arterials.
Strategy #5 Add Capacity	**Addition of General Purpose Lanes**	
	5-1 Freeway Lanes	Increasing the capacity of congested freeways through additional travel lanes.
	5-2 Arterial lanes	Increasing the capacity of congested arterials through additional travel lanes.
	5-3 Interchanges	Improving Interchange design to allow smoother traffic flow to/from arterials.
	5-4 Improve Alternate Routes	Constructing new roadways or increasing the capacity of other roadways that will decrease demand on congested existing facilities.

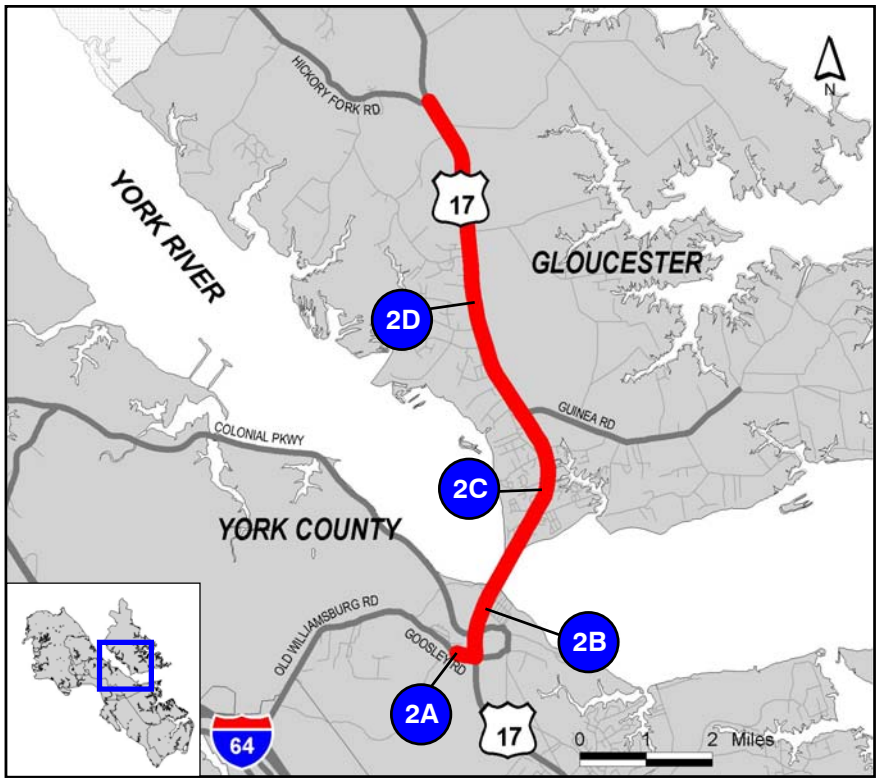
[4] Primary Source: Wilmington Area Planning Council (WILMAPCO), 2003 Congestion Management System Report, July 2003.

CMS Congested Area #1 – Williamsburg/James City County



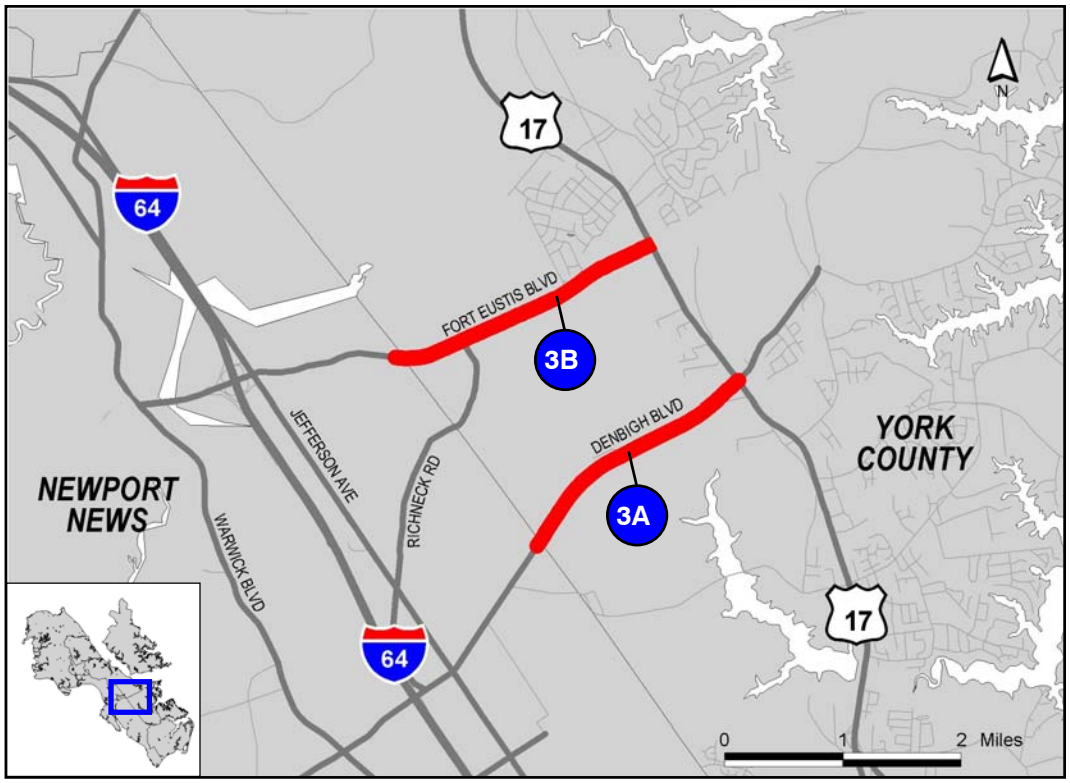
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
1A	York St - Page St to James City CL	2	E	17,894	17,500 to 22,700	> 22,700	Heavy peak hour volume (tourist season count), Capacity deficiency, High % No Passing	Eliminate Person Trips through Transportation Demand Management, Shift trips from Auto to other modes (Transit and improved/expanded pedestrian/bicycle network), Add capacity
1B	Rte 199 - John Tyler Hwy (Rte 5) to James City CL (East)	4	E	29,353 to 29,427	15,900 to 38,200	> 38,200	Heavy peak hour volume, high signals per mile, and congestion at intersection with Jamestown Rd	Eliminate Person Trips through Transportation Demand Management, Improve Roadway Operations (Optimize Signal Timings and Intersection Geometric Improvements)

CMS Congested Area #2 – Gloucester/York County Route 17 Corridor



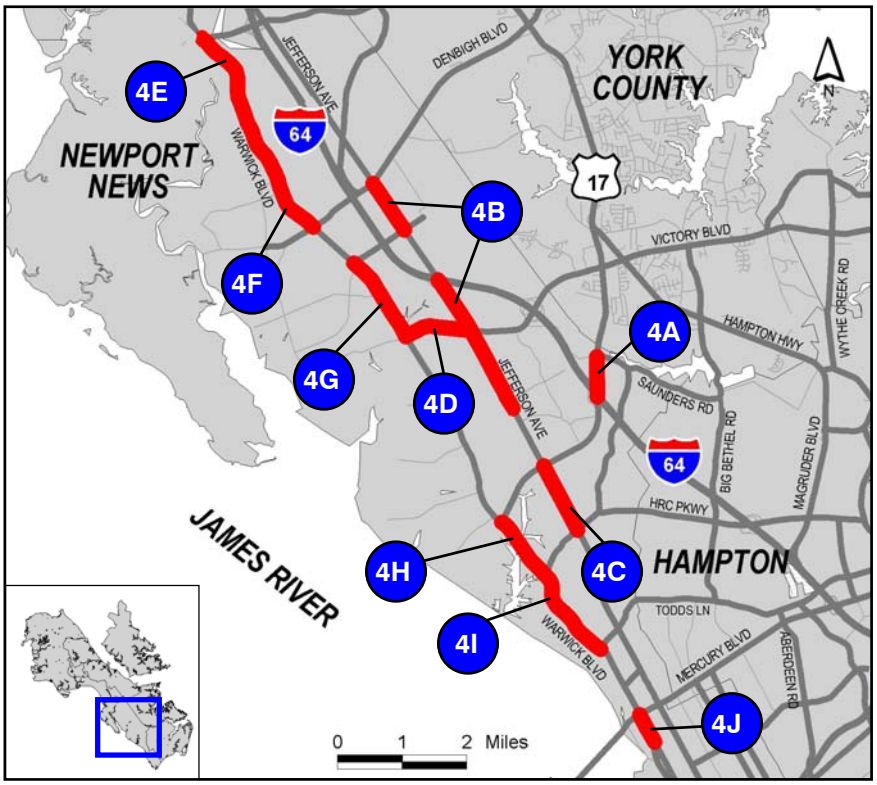
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
2A	Goosley Rd - Crawford Rd to Route 17	2	E	6,359	5,500 to 11,000	> 11,000	Heavy peak hour volume and directional distribution, No turn lanes	Improve Roadway Operations (Add turn lanes and Optimize signal timings at nearby intersections)
2B	George Washington Hwy - Goosley Rd (Rte 238) to Gloucester CL (Coleman Bridge)	4	F	38,019	34,700 to 36,100	> 36,100	Heavy peak hour volume and directional distribution, capacity deficiency	Eliminate Person Trips through Transportation Demand Management, Add Capacity
2C	Rte 17 (Coleman Bridge) - York CL to Rte 216 (Guinea Rd)	4	F	34,070	NA	> 33,100	Heavy peak hour volume and directional distribution, capacity deficiency, and high number of access points	Eliminate Person Trips through Transportation Demand Management, Improve Roadway Operations (Optimize signal timings, Access Management, Continue to encourage Smart Tag use), Minimize bridge openings during peak hours, Add Capacity
2D	Rte 17 - Rte 216 (Guinea Rd) to Rte 614 E (Featherbed Lane)	4	F	36,168	NA	> 34,200	Heavy peak hour volume and directional distribution, capacity deficiency, and high number of access points	Eliminate Person Trips through Transportation Demand Management, Improve Roadway Operations (Optimize signal timings, Access Management), Add Capacity

CMS Congested Area #3 – Central York County



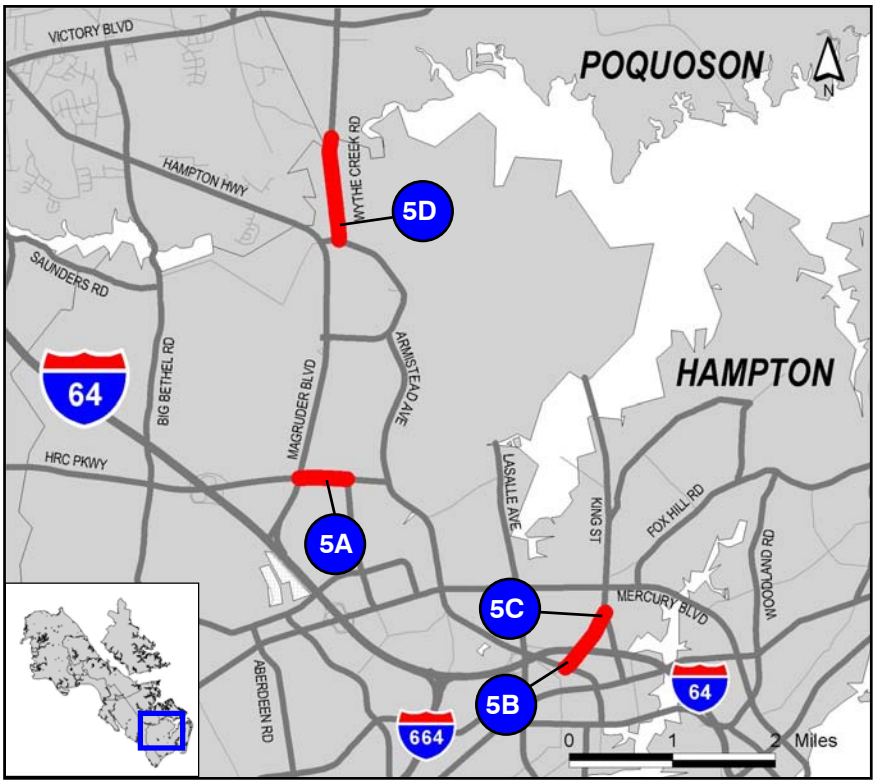
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
3A	Denbigh Blvd - Newport News CL to Route 17	2	E	15,857	15,700 to 27,600	> 27,600	Heavy peak hour volume on rural 2 lane roadway, capacity deficiency, and high % No Passing	Eliminate Person Trips through Transportation Demand Management, Add Capacity
3B	Fort Eustis Blvd - Newport News CL to Route 17	2	E	16,606	13,800 to 24,200	> 24,200	Heavy peak hour volume and directional distribution on rural 2 lane roadway, capacity deficiency	Eliminate Person Trips through Transportation Demand Management, Add Capacity

CMS Congested Area #4 – Newport News



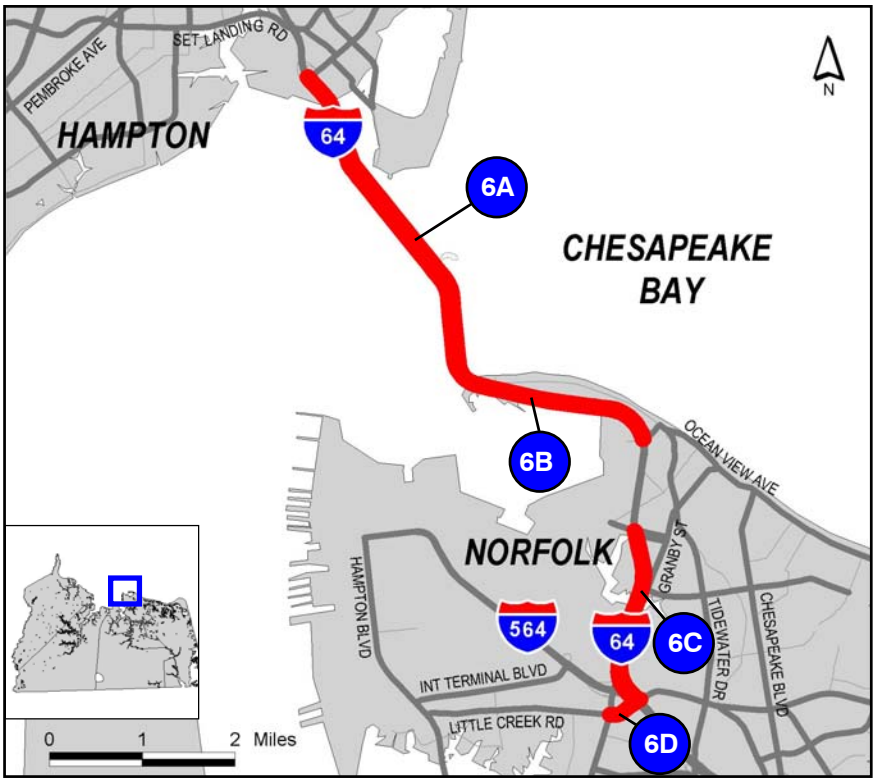
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
4A	J Clyde Morris Blvd - I-64 to Harpersville Rd	4	F	41,480	37,100 to 39,700	> 39,700	Heavy peak hour volume and high signals per mile, capacity deficiency	Eliminate Person Trips through Transportation Demand Management, Improve Roadway Operations (Optimize signal timings), Add Capacity
4B	Jefferson Ave - Denbigh Blvd to Middle Ground Blvd	6	E	57,350 to 58,750	57,300 to 59,300	> 59,300	Heavy peak hour volume and high signals per mile	Shift trips from Auto to other modes (i.e. Light Rail Transit), Eliminate Person Trips through Transportation Demand Management or Changes in Land Use, Improve Roadway Operations (Optimize signal timings), Improve Alternate Routes
4C	Jefferson Ave - J Clyde Morris Blvd to Harpersville Rd	6	E	56,897	56,900 to 58,700	> 58,700	Heavy peak hour volume	Same as 4B and Access Management
4D	Oyster Point Rd - Warwick Blvd to Jefferson Ave	4	F	46,330	29,300 to 36,500	> 36,500	Heavy peak hour volume, capacity deficiency, high signals per mile	Same as 4B and Add Capacity
4E	Warwick Blvd - Ft Eustis Blvd to Snidow Blvd	4	F	38,434	34,800 to 36,000	> 36,000	Heavy peak hour volume and directional distribution, capacity deficiency, high signals per mile	Shift trips from Auto to other modes (i.e. Light Rail Transit), Eliminate Person Trips through Transportation Demand Management or Changes in Land Use, Improve Roadway Operations (Optimize signal timings, Access Management), Improve Alternate Routes, Add Capacity
4F	Warwick Blvd - Snidow Blvd to Denbigh Blvd	4	F	47,554	42,700 to 46,300	> 46,300	Heavy peak hour volume and high signals per mile, capacity deficiency	
4G	Warwick Blvd - Bland Blvd to Oyster Point Rd	4	F	44,912	41,500 to 42,100	> 42,100	Heavy peak hour volume, capacity deficiency	
4H	Warwick Blvd - J C Morris Blvd to Harpersville Rd	5	E	34,109	34,000 to 35,800	> 35,800	Heavy peak hour volume and directional distribution, capacity deficiency	
4I	Warwick Blvd - Harpersville Rd to Main St	4	F	38,981	30,800 to 31,700	> 31,700	Heavy peak hour volume and directional distribution, capacity deficiency, high signals per mile	
4J	Warwick Blvd - Mercury Blvd to Huntington Ave	6	F	30,991	26,400 to 27,500	> 27,500	Heavy peak hour volume and direction distribution, high signals per mile	Same as 4B

CMS Congested Area #5 – Hampton



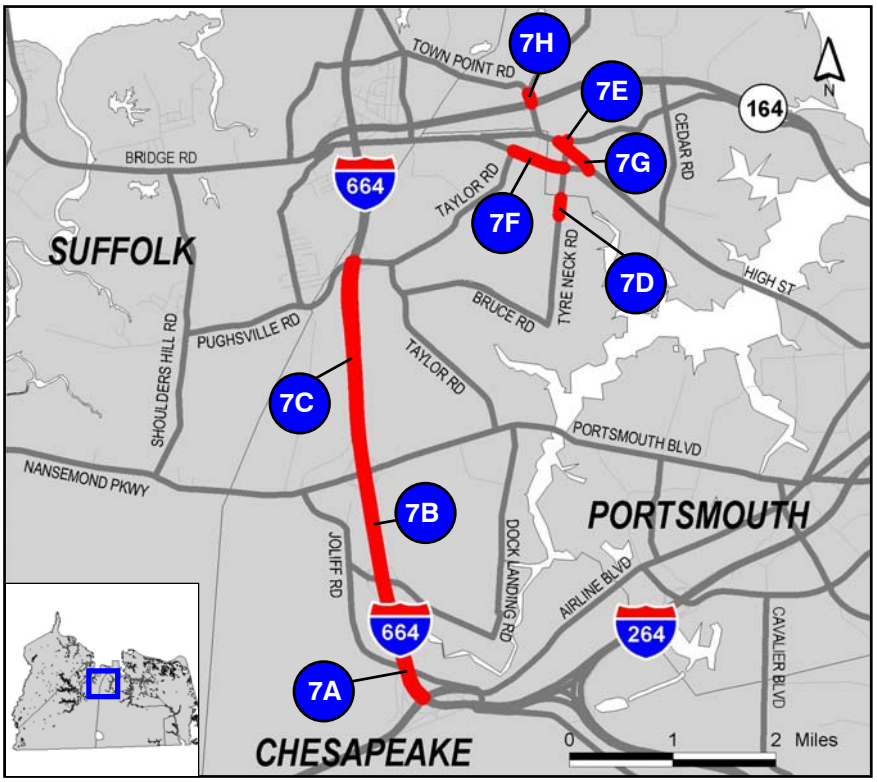
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
5A	HRC Parkway - Magruder Blvd to Coliseum Dr	4	F	38,379	34,600 to 35,500	> 35,500	Heavy peak hour volume, mainly a result of construction on I-64	Complete I-64 construction
5B	Rip Rap Rd - Armistead Ave to I-64	2	F	10,084	7,700 to 9,800	> 9,800	Heavy peak hour volume and directional distribution, capacity deficiency, high signals per mile	Improve Roadway Operations (Optimize signal timings, Access Management), Improve alternate routes (Planned Interchange improvements at I-64 and Armistead/LaSalle)
5C	Rip Rap Rd - I-64 to King St	2	E	10,084	8,700 to 11,000	> 11,000	Heavy peak hour volume and directional distribution, capacity deficiency	
5D	Wythe Creek Rd - Armistead Ave to Poquoson CL	2	F	16,714	NA	> 13,200	Heavy peak hour volume and directional distribution, capacity deficiency, high % no passing	Eliminate Person Trips through Transportation Demand Management (carpool/vanpool), Improve Roadway Operations (Optimize signal timings), Add Capacity

CMS Congested Area #6 – Hampton Roads Bridge-Tunnel



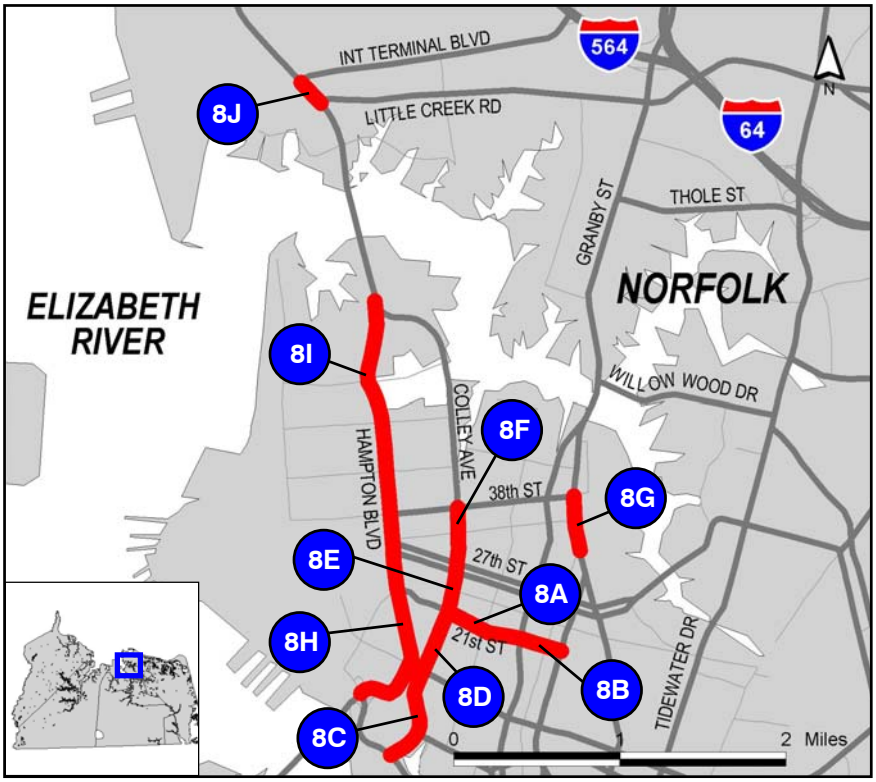
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
6A	I-64/HRBT - Mallory St to Ocean View Ave	4	F (EB) F (WB)	91,225 Peak Hr: 3,472 (EB) 3,146 (WB)	2,690 to 2,970	> 2,970	Heavy peak hour volume, capacity deficiency, incidents, overheight vehicles, tunnel-related human factors	Add Cross Harbor Capacity, Stricter enforcement, Shift trips to other modes (transit, fast ferry), Congestion Pricing, ITS improvements
6B	I-64 - Ocean View Ave to 4th View Ave	4	F (WB)	91,225 Peak Hr: 3,056 (WB)	2,690 to 2,970	> 2,970	Heavy peak hour volume, capacity deficiency, and incidents	Add Cross Harbor Capacity, Shift trips to other modes (transit, fast ferry), Congestion Pricing, ITS improvements, Improved Incident Management
6C	I-64 - Bay Ave to I-564/Little Creek Rd	4	E (EB)	98,260 Peak Hr: 3,521 (EB)	3,410 to 3,880	> 3,880	Heavy peak hour volume, capacity deficiency, and incidents	Add Cross Harbor Capacity, Shift trips to other modes (transit, fast ferry), Congestion Pricing, ITS improvements, Improved Incident Management
6D	Little Creek Rd - Granby St to I-64	4	E	38,860	19,000 to 43,500	> 43,500	Heavy peak hour volume, high signals per mile, and railroad crossing	Eliminate Person Trips through Transportation Demand Management, Improve Roadway Operations (Optimize signal timings, Add turn lanes)

CMS Congested Area #7 – I-664/Western Branch



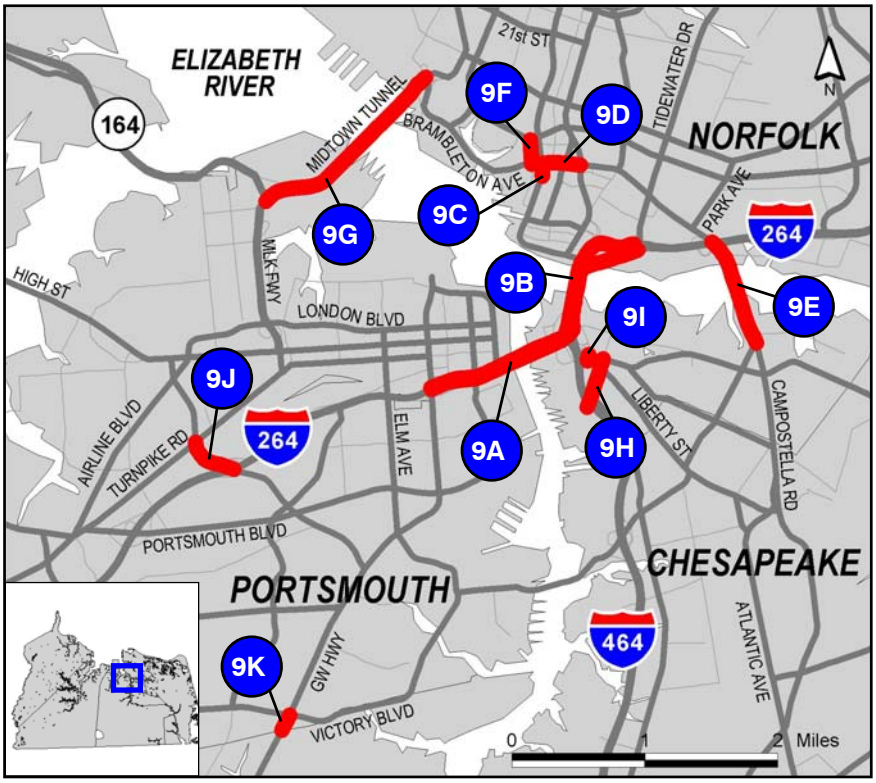
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
7A	I-664 - Rte 13/58/460 to Dock Landing Rd	4	E (EB) E (WB)	78,625 Peak Hr: 3,485 (EB) 3,711 (WB)	3,450 to 3,870	> 3,870	Heavy peak hour volume, capacity deficiency, and incidents	Eliminate Person Trips through Transportation Demand Management or Changes in Land Use, ITS improvements, Improve Incident Management, Add Capacity
7B	I-664 - Dock Landing Rd to Portsmouth Blvd	4	E (EB)	73,215 Peak Hr: 3,519 (EB)	3,450 to 3,870	> 3,870	Heavy peak hour volume, capacity deficiency, and incidents	
7C	I-664 - Portsmouth Blvd to Pughsville Rd	4	E (EB)	72,407 Peak Hr: 3,538 (EB)	3,520 to 3,960	> 3,960	Heavy peak hour volume, capacity deficiency, and incidents	
7D	Tyre Neck Rd - Silverwood Blvd to Portsmouth CL	2	E	12,400	12,300 to 16,700	> 16,700	Heavy peak hour volume and directional distribution, capacity deficiency	Improve Roadway Operations (Add turn lanes), Add Capacity
7E	Tyre Neck Rd - Churchland Blvd to West Norfolk Rd	2	E	3,593	< 9,800	> 9,800	Heavy peak hour volume, high signals per mile	None
7F	Western Branch Blvd - Taylor Rd to Tyre Neck Rd	4	E	23,758	15,500 to 35,700	> 35,700	Heavy peak hour volume, high signals per mile, and high number of access points	Interjurisdictional coordination of signal timings, Improve Roadway Operations (Access Management)
7G	Churchland Blvd - West Norfolk Rd to High St	4	E	13,202 to 13,834	4,400 to 22,200	> 22,200	Heavy peak hour volume and high signals per mile	Improve Roadway Operations (Optimize and coordinate signals)
7H	Town Point Rd - Twin Pines Rd to Western Freeway	4	E	30,426	18,800 to 36,300	> 36,300	Heavy peak hour volume, high signals per mile, and weaving	Improve Roadway Operations (Optimize and coordinate signals)

CMS Congested Area #8 – West Norfolk/Hampton Blvd



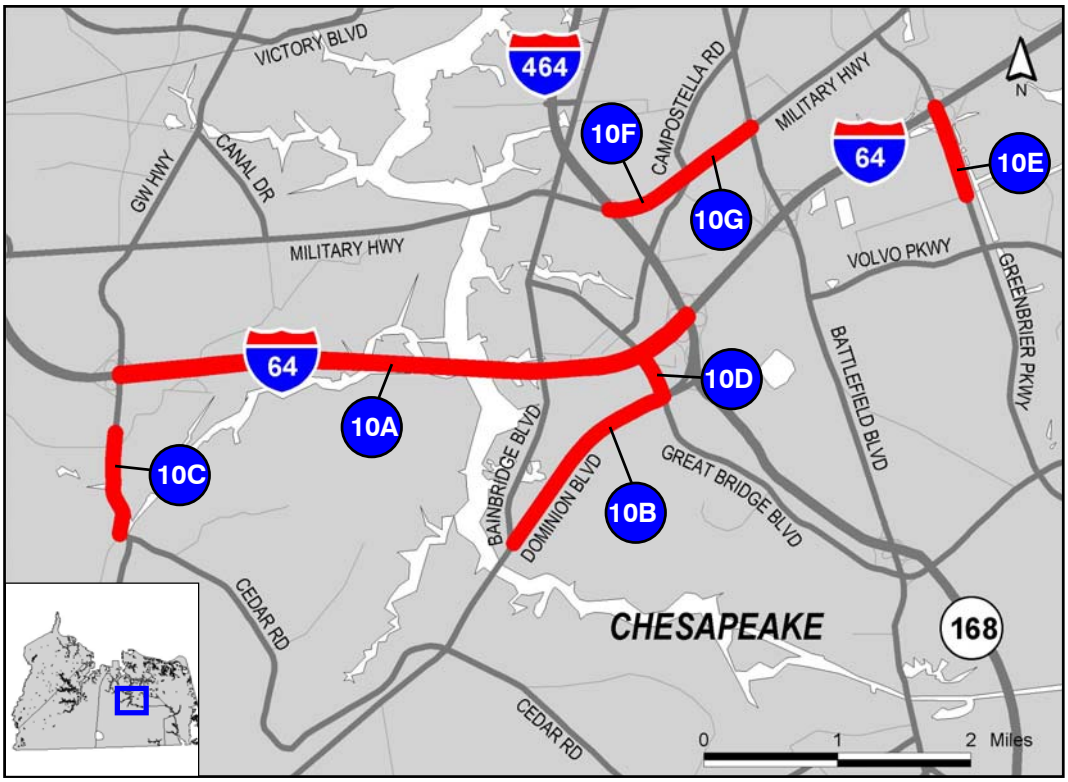
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
8A	21st St - Colley Ave to Llewellyn St	2	E	14,686	13,300 to 16,500	> 16,500	Heavy peak hour volume, high signals per mile, urban environment	Improve Roadway Operations (Optimize and coordinate signals, Access Management), Shift trips from Auto to other modes (Improve Pedestrian Network and Connections)
8B	21st St - Llewellyn St to Monticello Ave	2	E	10,202	5,000 to 13,900	> 13,900	Heavy peak hour volume, high signals per mile, urban environment	
8C	Colley Ave - Brambleton Ave to Princess Anne Rd	4	E	14,704 to 18,211	12,400 to 30,300	> 30,300	Heavy peak hour volume and directional distribution, high signals per mile	Improve Roadway Operations (Optimize and coordinate signals)
8D	Colley Ave - Princess Anne Rd to 21st St	2	E	16,524	16,400 to 20,500	> 20,500	Heavy peak hour volume, urban environment	None
8E	Colley Ave - 21st St to 27th St	4	E	15,483	8,600 to 39,200	> 39,200	Heavy peak hour volume, high signals per mile	Improve Roadway Operations (Optimize and coordinate signals)
8F	Colley Ave - 27th St to 38th St	2	E	14,476	14,100 to 17,600	> 17,600	Heavy peak hour volume, high signals per mile	
8G	Granby St - Church St to 38th St	4	F	24,293	NA	> 21,900	Heavy peak hour volume and directional distribution, high signals per mile	Improve Roadway Operations (Optimize and coordinate signals)
8H	Hampton Blvd - Brambleton Ave to 38th St	4	F	38,698 to 41,819	32,600 to 37,200	> 37,200	Heavy peak hour volume, capacity deficiency, high signals per mile, and truck % above regional average	Improve Roadway Operations (Optimize and coordinate signals, Access Management), Add Capacity
8I	Hampton Blvd - 38th St to Jamestown Crescent	6	E	40,780	26,100 to 58,100	> 58,100	Heavy peak hour volume, high signals per mile, and truck % above regional average	Improve Roadway Operations (Optimize and coordinate signals, Access Management)
8J	Hampton Blvd - Little Creek Rd to Int Term Blvd	6	E	37,387	21,800 to 48,400	> 48,400	Heavy peak hour volume and directional distribution, high signals per mile, truck % above regional average	Improve Roadway Operations (Optimize and coordinate signals)

CMS Congested Area #9 – Downtown Norfolk/Portsmouth



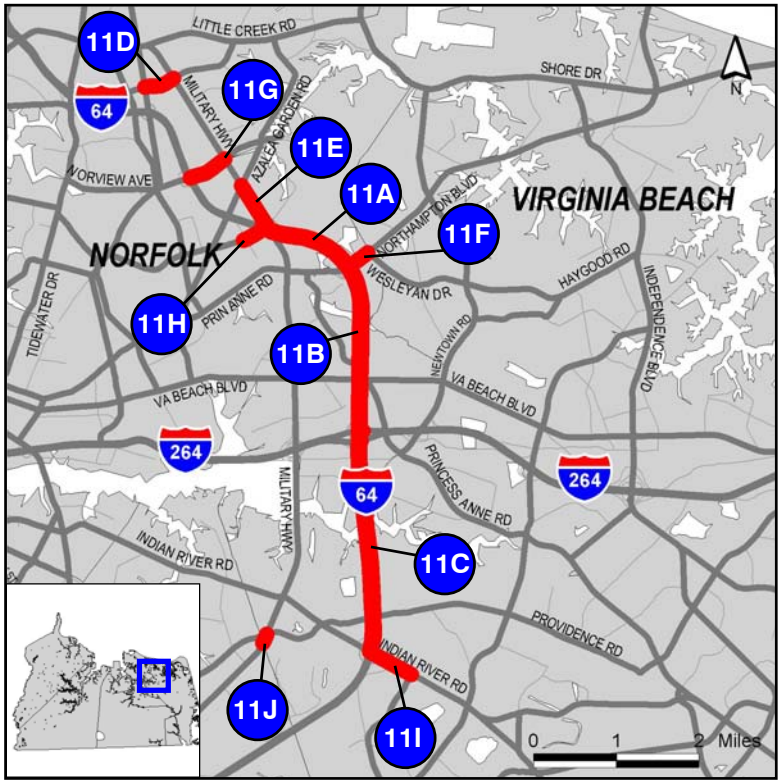
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
9A	I-264/Downtown Tunnel - Effingham St to I-464	4	F (EB) F (WB)	101,429 Peak Hr: 3,329 (EB) 3,410 (WB)	2,690 to 2,970	> 2,970	Heavy peak hour volume, capacity deficiency, and incidents	Eliminate person trips (Value pricing, Transportation Demand Management), ITS Improvements, Shift trips from Auto to other modes (Transit), Incident Management, Add Capacity, Improve alternate routes
9B	I-264 - I-464 to Waterside/City Hall/Tidewater	8	F (WB)	121,818 Peak Hr: 5,355 (WB)	4,540 to 4,910	> 4,910	Heavy peak hour volume and directional distribution, capacity deficiency, incidents, weaving, Downtown Tunnel congestion	
9C	Boush St - Bute St to Brambleton Ave	4	F	28,198	24,700 to 25,700	> 25,700	Heavy peak hour volume and directional distribution, high signals per mile, urban environment	Improve Roadway Operations (Optimize and coordinate signals), Shift trips from Auto to other modes (Transit and Ped Improvements), Transportation Demand Management
9D	Brambleton Ave - Boush St to St Pauls Blvd	5/6	F	36,426	NA	> 30,200	Heavy peak hour volume and directional distribution, high signals per mile, truck % above regional average	Improve Roadway Operations (Optimize and coordinate signals), Shift trips from Auto to other modes (Transit and Ped Improvements), Transportation Demand Management
9E	Campostella Rd - Wilson Rd to I-264	6	F	43,395	32,200 to 36,300	> 36,300	Heavy peak hour volume and directional distribution, truck % above regional average	Improve Roadway Operations (Consider reversible lanes to alleviate heavy directional distribution)
9F	Duke St - Olney Rd to Brambleton Ave	2	E	9,500	9,200 to 9,900	> 9,900	Heavy peak hour volume, high signals per mile, urban environment	Improve Roadway Operations (Optimize and coordinate signals)
9G	Midtown Tunnel - MLK Fwy/Western Fwy to Brambleton Ave	2	F	35,309	12,600 to 16,500	> 16,500	Heavy peak hour volume, capacity deficiency, incidents, truck % above regional average	Eliminate person trips (Value pricing, Transportation Demand Management), ITS Improvements, Shift trips from Auto to other modes (Transit), Incident Management, Add Capacity, Improve alternate routes
9H	South Main St - I-464 to Berkley Ave	2	E	1,300 to 2,300	< 10,400	> 10,400	High signals per mile	Improve Roadway Operations (Optimize and coordinate signals)
9I	State St - Liberty St to Berkley Ave	2	E	3,704	< 8,800	> 8,800	High signals per mile	Improve Roadway Operations (Optimize and coordinate signals)
9J	Frederick Blvd - I-264 to Turnpike Rd	4	F	43,929	38,700 to 39,700	> 39,700	Heavy peak hour volume, capacity deficiency, railroad crossing	Add Capacity, Improve alternate routes (MLK Extension)
9K	George Washington Hwy - Chesapeake CL to Victory Blvd	4	F	30,183	27,500 to 27,700	> 27,700	Heavy peak hour volume and directional distribution, truck % above regional average	Improve Roadway Operations (Access Management, Intersection Geometric Improvements)

CMS Congested Area #10 – Northern Chesapeake



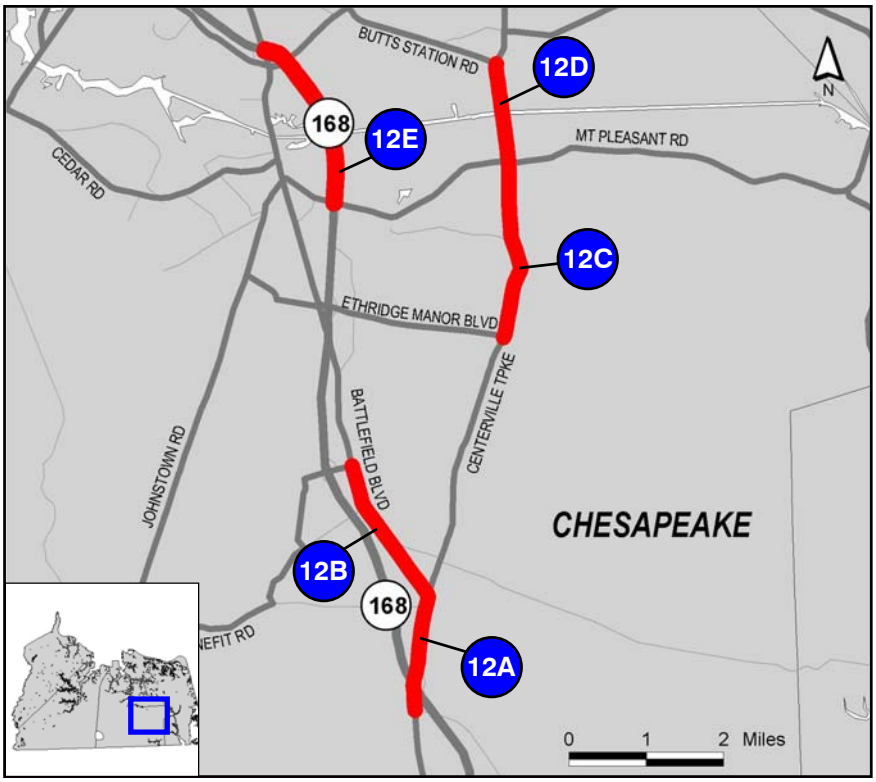
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
10A	I-64 - I-464 to George Washington Hwy	4	F (EB) E (WB)	87,988 Peak Hr: 3,768 (EB) 3,574 (WB)	3,300 to 3,750	> 3,750	Heavy peak hour volume, capacity deficiency, incidents, sun glare	Improve Roadway Operations (ITS Improvements and Incident Management), Transportation Demand Management, Add Capacity
10B	Dominion Blvd - Bainbridge Blvd to Great Bridge Blvd	2	E	26,440	26,000 to 29,600	> 29,600	Heavy peak hour volume and directional distribution, capacity deficiency, bridge openings, truck % above regional average	Add Capacity, Minimize bridge openings
10C	George Washington Hwy - Mill Creek Pkwy to Willowood Dr	2	F	22,857	NA	> 22,100	Heavy peak hour volume, capacity deficiency, high % no passing, truck % above regional average	Add Capacity, Improve alternate routes
10D	Great Bridge Blvd - I-64 to Dominion Blvd	2	E	11,912	9,800 to 13,300	>13,300	Heavy peak hour volume and directional distribution, capacity deficiency, high % no passing	Add Capacity
10E	Greenbrier Pkwy - Eden Way to I-64	6	F	78,141	61,700 to 64,200	> 64,200	Heavy peak hour volume and high signals per mile	Improve Roadway Operations (Optimize and coordinate signals, Add/Extend turn lanes), Shift trips from Auto to other modes (Pedestrian and Transit Improvements)
10F	Military Hwy - I-464 to Campostella Rd	4	E	26,818	24,200 to 31,500	> 31,500	Heavy peak hour volume, high signals per mile, truck % above regional average, I-64 traffic diversion	Improve Roadway Operations (Optimize and coordinate signals)
10G	Military Hwy - Campostella Rd to Battlefield Blvd	4	E	28,579	27,800 to 29,300	> 29,300	Heavy peak hour volume and directional distribution, truck % above regional average, I-64 traffic diversion	Improve Roadway Operations (Optimize and coordinate signals)

CMS Congested Area #11 – East Norfolk/West Virginia Beach I-64 Corridor



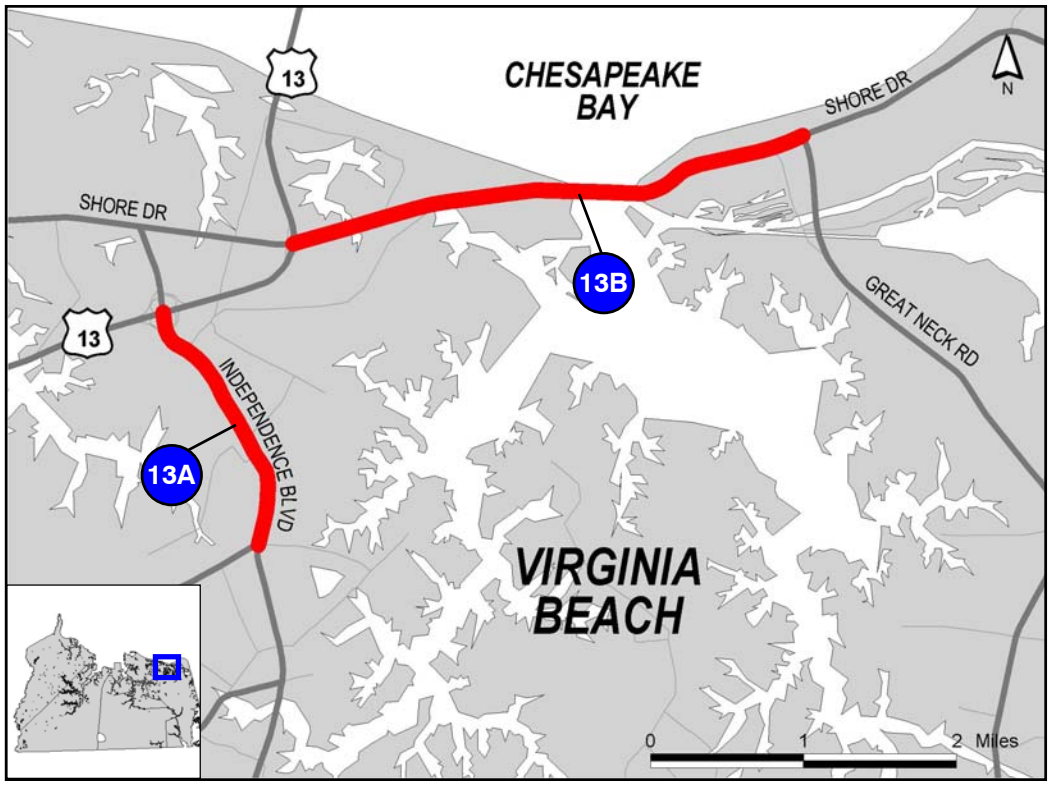
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
11A	I-64 - Military Hwy to Northampton Blvd	3 (EB) 3 (WB) +2 (HOV)	E (EB)	171,696 Peak Hr: 5,557 (EB)	5,440 to 6,180	> 6,180	Heavy peak hour volume and directional distribution, capacity deficiency, incidents, sun glare	Improve Roadway Operations (ITS Improvements and Incident Management), Shift trips from SOV to HOV Auto/Van, HOT lanes, Add Capacity
11B	I-64 - Northampton Blvd to I-264	3 (EB) 4 (WB) +2 (HOV)	E (EB)	178,304 Peak Hr: 5,421 (EB)	5,320 to 6,050	> 6,050	Heavy peak hour volume and directional distribution, capacity deficiency, incidents, Interchange design	Improve Roadway Operations (ITS Improvements and Incident Management), Shift trips from SOV to HOV Auto/Van, HOT lanes, Interchange Improvements, Add Capacity
11C	I-64 - I-264 to Indian River Rd	3 (EB) 3 (WB) +2 (HOV)	F (EB)	142,018 Peak Hr: 6,432 (EB)	5,350 to 6,080	> 6,080	Heavy peak hour volume and directional distribution, capacity deficiency, incidents, Interchange design	Improve Roadway Operations (ITS Improvements and Incident Management), Shift trips from SOV to HOV Auto/Van, Interchange Improvements, Add Capacity, Improve alternate routes (SEPG)
11D	Johnstons Rd - Chesapeake Blvd to Military Hwy	2	E	13,730	13,700 to 15,000	> 15,000	Heavy peak hour volume and directional distribution, no median	Improve Roadway Operations (Optimize and coordinate signals)
11E	Military Hwy - I-64 to Azalea Garden Rd	4	E	31,651	30,900 to 36,200	> 36,200	Heavy peak hour volume and high signals per mile	Improve Roadway Operations (Optimize and coordinate signals, Access Management)
11F	Northampton Blvd - I-64 to Wesleyan Dr/Va Beach CL	8	F	92,726	73,400 to 77,200	> 77,200	Heavy peak hour volume and directional distribution, high signals per mile, weaving	Consider Flyover, Consider reallignment of Wesleyan Dr
11G	Norview Ave - I-64 to Military Hwy	4	E	30,018	25,400 to 40,800	> 40,800	Heavy peak hour volume, high signals per mile	Improve Roadway Operations (Optimize and coordinate signals, Intersection Geometric Improvements)
11H	Robin Hood Rd - Ellsmere Ave to Military Hwy	2	E	14,020	13,000 to 14,300	> 14,300	Heavy peak hour volume and directional distribution	None
11I	Indian River Rd - I-64 to Centerville Tnpk	8	F	78,122	74,500 to 77,600	> 77,600	Heavy peak hour volume and directional distribution, high signals per mile, weaving	Improve Roadway Operations (Optimize and coordinate signals, Intersection Geometric Improvements @ Kempsville Rd), Improve alternate routes (SEPG)
11J	Military Hwy - Chesapeake CL to Providence Rd	6	F	36,344	NA	> 36,300	Heavy peak hour volume and high signals per mile	Improve Roadway Operations (Interjurisdictional coordination of signal timings)

CMS Congested Area #12 – Southern Chesapeake



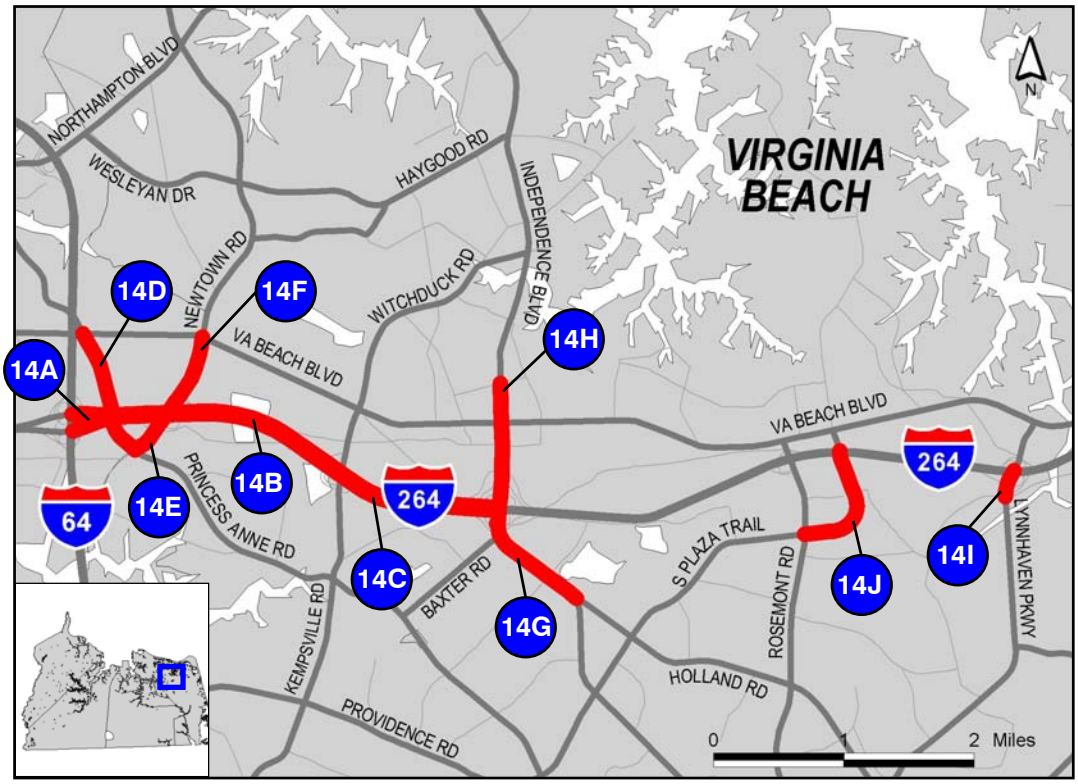
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
12A	Battlefield Blvd - Indian Creek Rd to Centerville Tnpk	2	E	14,729	14,500 to 28,400	> 28,400	Heavy peak hour volume on a rural 2 lane roadway, capacity deficiency, high % no passing	Add Capacity, Consider turn lanes
12B	Battlefield Blvd - Centerville Tnpk to Hillcrest Pkwy	2	E	16,294	16,100 to 27,800	> 27,800	Heavy peak hour volume on a rural 2 lane roadway, capacity deficiency, high % no passing	
12C	Centerville Tnpk - Ethridge Manor Blvd to Mt Pleasant Rd	2	E	12,504	12,500 to 24,200	> 24,200	Heavy peak hour volume and directional distribution, capacity deficiency	Improve Roadway Operations (Intersection Geometric Improvements), Consider turn lanes, Add Capacity
12D	Centerville Tnpk - Mt Pleasant Rd to Butts Station Rd	2	E	15,979	15,800 to 20,600	> 20,600	Heavy peak hour volume and directional distribution, capacity deficiency, high % no passing, bridge openings	Add Capacity, Minimize bridge openings
12E	Chesapeake Expwy - Mt Pleasant Rd to Battlfield Blvd	4	E (SB)	56,403 Peak Hr: 3,604 (SB)	3,600 to 4,100	> 4,100	Heavy peak hour volume and directional distribution, capacity deficiency	Shift trips from SOV to HOV Auto/Van (Ridesharing), Transportation Demand Management, Add Capacity

CMS Congested Area #13 – Northern Virginia Beach



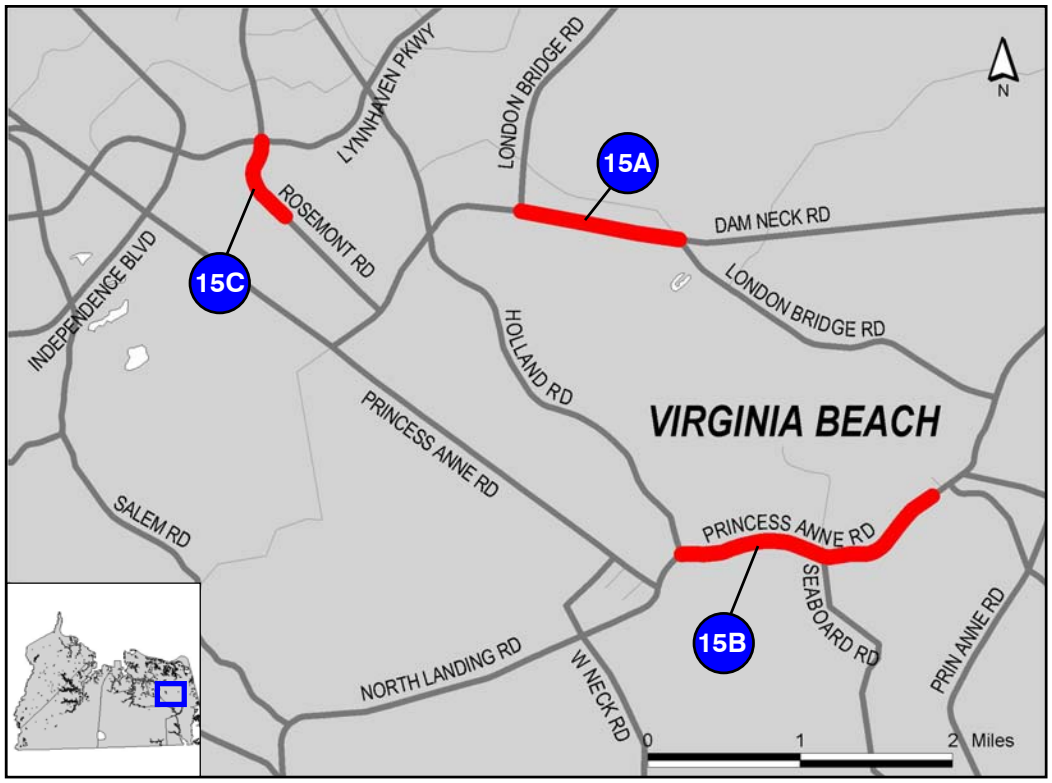
Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
13A	Independence Blvd - Haygood Rd to Northampton Blvd	4	F	43,743	NA	> 39,900	Heavy peak hour volume and directional distribution, capacity deficiency, truck % above regional average	Transportation Demand Management, Shift trips from Auto to other modes (transit), Add Capacity
13B	Shore Dr - Northampton Blvd to N Great Neck Rd	4	F	41,252	NA	> 35,900	Heavy peak hour volume and directional distribution, capacity deficiency	Improve Roadway Operations (Access Management, Intersection Geometric Improvements @ Northampton Blvd), Transportation Demand Management, Add Capacity

CMS Congested Area #14 – Central Virginia Beach I-264 Corridor



Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
14A	I-264 - I-64 to Newtown Rd/WCL Va Beach	5 (EB) 5 (WB) +2 (HOV)	E (EB)	241,927 Peak Hr: 8,881 (EB)	8,620 to 9,790	> 9,790	Heavy peak hour volume and directional distribution, capacity deficiency, Interchange design, incidents, weaving	Improve Roadway Operations (ITS and Incident Management), Shift trips from SOV to HOV Auto/Van, Shift trips from Auto to other modes (Transit), Transportation Demand Management, Planned Interchange Improvements, Add Capacity, Improve alternate routes (SEPG)
14B	I-264 - Newtown Rd/ECL Norfolk to Witchduck Rd	4 (EB) 4 (WB) +2 (HOV)	F (EB) E (WB)	215,046 Peak Hr: 7,868 (EB) 7,448 (WB)	7,280 to 8,280	> 8,280	Heavy peak hour volume, capacity deficiency, Interchange design, incidents, weaving	
14C	I-264 - Witchduck Rd to Independence Blvd	4 (EB) 4 (WB) +2 (HOV)	E (EB)	218,988 Peak Hr: 8,240 (EB)	7,470 to 8,480	> 8,480	Heavy peak hour volume and directional distribution, capacity deficiency, Interchange design, incidents	Improve Roadway Operations (ITS and Incident Management), Shift trips from SOV to HOV Auto/Van, Shift trips from Auto to other modes (Transit), Transportation Demand Management, Interchange Improvements, Add Capacity, Improve alternate routes (SEPG)
14D	Kempsville Rd - Newtown Rd to Va Beach Blvd	4	F	23,257	4,200 to 21,600	> 21,600	Heavy peak hour volume and directional distribution, high signals per mile	Improve Roadway Operations (Optimize and coordinate signals)
14E	Newtown Rd - Kempsville Rd to I-264	4	E	32,264	23,800 to 36,800	> 36,800	Heavy peak hour volume and directional distribution, capacity deficiency, Interchange design	Improve Roadway Operations (Access Management), Add Capacity, Interchange improvements
14F	Newtown Rd - I-264 to Va Beach Blvd	4	F	40,196	17,300 to 39,800	> 39,800	Heavy peak hour volume, capacity deficiency, high signals per mile	Improve Roadway Operations (Access Management, Intersection Geometric Improvments), Add Capacity
14G	Independence Blvd - Holland Rd to Virginia Beach Blvd	8	F	80,128 to 86,008	NA	> 76,500	Heavy peak hour volume and directional distribution, high signals per mile, weaving	Improve Roadway Operations (Optimize and coordinate signals), Shift trips from Auto to other modes (Transit), Interchange improvements, Improve alternate routes
14H	Independence Blvd - Virginia Beach Blvd to Jeanne St	8	E	53,472	26,900 to 73,500	> 73,500	Heavy peak hour volume and high signals per mile	Improve Roadway Operations (Optimize and coordinate signals)
14I	Lynnhaven Pkwy - Potters Rd to I-264	6	F	77,148	64,300 to 72,100	> 72,100	Heavy peak hour volume, high signals per mile	Improve Roadway Operations (Optimize and coordinate signals), Transportation Demand Management, Shift trips from Auto to other modes (Transit), Lynnhaven/Great Neck Interchange improvements
14J	Plaza Trail - Rosemont Rd to I-264	2	E	12,146	12,100 to 16,100	> 16,100	Heavy peak hour volume, capacity deficiency, no turn lanes	Add turn lanes, Add Capacity, Improve alternate routes

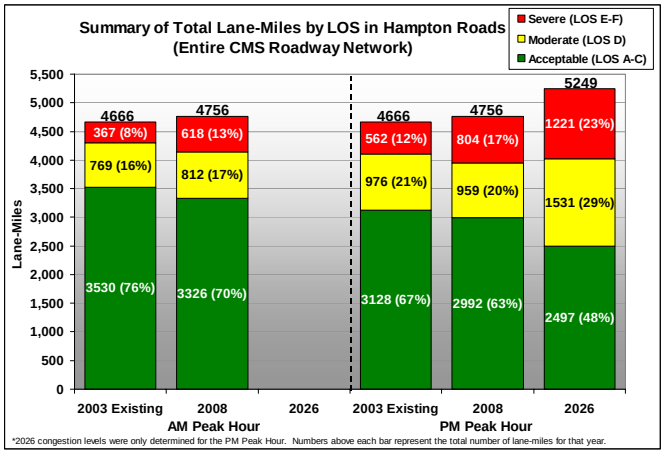
CMS Congested Area #15 – Southern Virginia Beach



Map ID	Facility Name	2003 Existing Lanes	2003 Existing PM LOS	'01 - '03 Existing ADT	LOS E Volume Range	LOS F Volume Range	Probable Causes of Congestion	CMS Mitigation Strategy
15A	**Dam Neck Rd - London Bridge Extended to London Bridge Rd**	**4**	**F**	**49,046**	**NA**	**> 45,100**	Heavy peak hour volume	Improve Roadway Operations (Intersection Geometric Improvements)
15B	**Princess Anne Rd - Holland Rd to Crossroad Rd**	**2**	**E**	**25,012**	**23,900 to 30,600**	**> 30,600**	Heavy peak hour volume, capacity deficiency, high % no passing	Add Capacity, Improve alternate routes (Planned Nimmo Pkwy)
15C	**Rosemont Rd - Faculty Dr to Lynnhaven Pkwy**	**2**	**F**	**17,613**	**NA**	**> 17,100**	Heavy peak hour volume, capacity deficiency, high % no passing	Add Capacity

NEXT STEPS

The Congestion Management System (CMS) program is an on-going process that identifies, develops, evaluates, and implements transportation strategies to reduce traffic congestion and enhance safety and mobility regionwide. Currently, the Hampton Roads region is experiencing severe congestion levels on 8% of all CMS roadway lane-miles during the morning peak hour and 12% during the afternoon peak hour. Severe congestion levels are expected to nearly double to 23% of all CMS roadway lane-miles during the afternoon peak hour by the year 2026.



As congestion levels rise, it is imperative to evaluate, develop, and apply congestion mitigation measures involving all modes to improve service levels on region's transportation system. In order to achieve this goal, a comprehensive list of CMS mitigation strategies has been provided in the previous section of this report. The strategies were grouped into five major categories: 1) Eliminate person trips or reduce VMT, 2) Shift trips from auto to other modes, 3) Shift trips from SOV to HOV, 4) Improve roadway operations, and 5) Add capacity. Within this section, a package of potential CMS mitigation strategies were recommended for some of the most congested roadway segments. It is important to utilize these strategies as well as others determined from future detailed analyses and studies to develop transportation system improvements for inclusion in future Transportation Improvement Programs (TIP) and Long Range Plans. Furthermore, in light of the current mismatch between transportation funding and transportation deficiencies, it is more important than ever that only the best projects should be selected for planned construction.

Finally, the HRPDC must continue to monitor and refine the regional CMS. Data collection efforts, such as traffic volumes, peak hour factors, roadway and signal characteristics, capacity changes, and other transportation improvements will continue to be updated in order to assist with future CMS report releases.

CMS Congestion Management System

Traffic Volumes and Peak Hour Congestion Levels

Part 2: Technical Appendix

HAMPTON ROADS
PLANNING DISTRICT COMMISSION

APRIL 2005

T05-01A

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CONGESTION MANAGEMENT SYSTEM

Traffic Volumes and Peak Hour Congestion Levels
Part 2: Technical Appendix

This report was included in the Work Program for Fiscal Year 2004-2005, which was approved by the Commission and the Metropolitan Planning Organization at their meetings of March 17, 2004.

PREPARED BY:

HAMPTON ROADS
PLANNING DISTRICT COMMISSION

APRIL 2005

T05-01A

REPORT DOCUMENTATION

TITLE:
Hampton Roads Congestion Management System
Part 2: Technical Appendix - Traffic Volumes and Peak Hour Congestion Levels

REPORT DATE
April 2005

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ABSTRACT

According to the Final Rules on Management and Monitoring Systems published in the Federal Register in December 19, 1996, the Congestion Management System (CMS) is required in all Transportation Management Areas (TMA), metropolitan areas over 200,000 in population. The CMS program is an on-going process that identifies, develops, evaluates, and implements transportation strategies to reduce traffic congestion and enhance safety and mobility regionwide. The Hampton Roads Planning District Commission (HRPDC) began developing a Congestion Management System for the region in the early 1990s, and released the region's first CMS report in 1995. Other previous updates to the CMS were released in 1997 and 2001.

This report is the second part of an update to the Congestion Management System for Hampton Roads, which includes an analysis of the traffic trends at the major regional bridges and tunnels as well as a comprehensive congestion analysis of the region's roadway system for 2003, 2008, and 2026 peak hours. An in-depth analysis is provided for roadway facilities that are currently operating at severe conditions (PM peak hour) and are expected to remain congested through 2026 with no current planned improvements in place. For these congested locations, the probable causes of today's congestion as well as CMS mitigation strategies and recommendations are provided.

ACKNOWLEDGMENTS

This report was prepared by the Hampton Roads Planning District Commission (HRPDC) in cooperation with the U.S. Department of Transportation (USDOT), the Federal Highway Administration (FHWA), and the Virginia Department of Transportation (VDOT). The contents of this report reflect the views of the staff of the Hampton Roads Area Metropolitan Planning Organization (MPO). The MPO staff is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the FHWA, VDOT, or HRPDC. This report does not constitute a standard, specification, or regulation. FHWA or VDOT acceptance of this report as evidence of fulfillment of the objectives of this planning study does not constitute endorsement/approval of the need for any recommended improvements nor does it constitute approval of their location and design or a commitment to fund any such improvements. Additional project level environmental impact assessments and/or studies of alternatives may be necessary.

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APPENDIX A

CMS Historical and Future Traffic Volumes – Interstates and Freeways/Expressways

Appendix A: CMS Historical and Future Traffic Volumes – **INTERSTATES AND FREEWAYS/EXPRESSWAYS**

Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
						1997 (One-way)	1997 (Total)	1998 (One-way)	1998 (Total)	1999 (One-way)	1999 (Total)	2000 (One-way)	2000 (Total)	2001 (One-way)	2001 (Total)	2002 (One-way)	2002 (Total)	2003 (One-way)	2003 (Total)	2008 (Total)	2026 (Total)	
CHES	I-64	VA BEACH CL	GREENBRIER PKWY	EB	1.30				120,420			61,512	119,698					61,479	128,511	142,000	119,000	-0.3%
CHES				WB								58,186						67,032				
CHES	I-64	GREENBRIER PKWY	BATTLEFIELD BLVD	EB	1.42							58,205	110,635					62,734	129,554	143,000	111,000	-0.7%
CHES				WB								52,430						66,820				
CHES	I-64	BATTLEFIELD BLVD	I-464	EB	1.08	44,007	86,681					52,230	102,913					55,562	116,723	129,000	117,000	0.0%
CHES				WB		42,674						50,683						61,161				
CHES	I-64	I-464	GEORGE WASHINGTON HWY	EB	4.38							36,636	73,280					43,308	87,988	102,000	95,000	0.3%
CHES				WB								36,644						44,680				
CHES	I-64	GEORGE WASHINGTON HWY	MILITARY HWY	EB	1.53							27,128	57,956					37,599	73,421	85,000	90,000	0.9%
CHES				WB								30,828						35,822				
CHES	I-64	MILITARY HWY	I-264&664	EB	2.31							36,615	72,782					35,768	72,104	84,000	97,000	1.3%
CHES				WB								36,167						36,336				
CHES	I-264	I-64&664	WCL PORTSMOUTH	EB	1.23	21,749	43,498					21,823	44,485					25,319	50,806	59,000	53,000	0.2%
CHES				WB		21,749						22,662						25,487				
CHES	I-464	I-64	MILITARY HWY	NB	1.00							24,058	45,525					29,649	53,286	62,000	80,000	1.8%
CHES				SB								21,467						23,637				
CHES	I-464	MILITARY HWY	FREEMAN AVE	NB	0.97			23,774	45,131	24,467	47,045	26,335	50,126					27,330	49,694	55,000	77,000	1.9%
CHES				SB				21,357		22,578		23,791						22,364				
CHES	I-464	FREEMAN AVE	POINDEXTER ST	NB	1.90							24,130	45,613			25,865	48,535	25,609	48,210	53,000	70,000	1.6%
CHES				SB								21,483				22,670		22,601				
CHES	I-464	POINDEXTER ST	NORFOLK CL	NB	0.72							21,914	43,077					27,273	50,253	58,000	64,000	1.1%
CHES				SB								21,163						22,980				
CHES	I-664	I-64 & I-264	RTE 13 58 460	EB	1.70							53,294	105,456					52,059	110,542	122,000	138,000	1.0%
CHES				WB								52,162						58,483				
CHES	I-664	RTE 13 58 460	DOCK LANDING RD	EB	1.25							37,038	73,897					38,721	78,625	87,000	89,000	0.5%
CHES				WB								36,859						39,904				
CHES	I-664	DOCK LANDING RD	PORTSMOUTH BLVD	EB	1.14							29,250	64,086					36,283	73,215	85,000	88,000	0.8%
CHES				WB								34,836						36,932				
CHES	I-664	PORTSMOUTH BLVD	PUGHSVILLE RD	EB	2.06							30,524	65,298					36,099	72,407	84,000	84,000	0.6%
CHES				WB								34,774						36,308				
CHES	I-664	PUGHSVILLE RD	SUFFOLK CL	EB	0.83					30,453		30,453	60,522					33,821		78,000	83,000	0.9%
CHES				WB								30,069						33,821				
CHES	CHESAPEAKE EXPWY	GALLBUSH RD	BATTLEFIELD BLVD (NEAR INDIAN CREEK)	NB	2.61										7,290		11,012			13,000	11,000	0.0%
CHES				SB																		
CHES	CHESAPEAKE EXPWY	BATTLEFIELD BLVD (NEAR INDIAN CREEK)	HILLCREST PKWY	NB	2.63												11,012			13,000	14,000	1.0%
CHES				SB																		
CHES	CHESAPEAKE EXPWY	HILLCREST PKWY	BATTLEFIELD BLVD (S OF GREAT BRIDGE)	NB	2.21													9,492	19,529	24,000	45,000	3.7%
CHES				SB														10,037				
CHES	CHESAPEAKE EXPWY (GBB)	BATTLEFIELD BLVD (S OF GREAT BRIDGE)	HANBURY RD	NB	0.59											9,075	17,546			21,000	44,000	3.9%
CHES				SB												8,471						
CHES	CHESAPEAKE EXPWY (GBB)	HANBURY RD	MT PLEASANT RD	NB	1.31						23,314					17,459	33,481			41,000	39,000	0.6%
CHES				SB												16,022						
CHES	CHESAPEAKE EXPWY (GBB)	MT PLEASANT RD	BATTLEFIELD BLVD (N OF GREAT BRIDGE)	NB	2.31						54,738					28,463	56,403			63,000	88,000	1.9%
CHES				SB												27,940						
CHES	CHESAPEAKE EXPWY (OGC)	BATTLEFIELD BLVD (N OF GREAT BRIDGE)	DOMINION BLVD	NB	1.90						67,939					28,025	55,285			64,000	126,400	3.5%
CHES				SB												27,260						
CHES	CHESAPEAKE EXPWY (OGC)	DOMINION BLVD	I-64	NB	0.57							21,059	51,082					21,974	55,027	64,000	136,000	4.0%
CHES				SB								30,023						33,053				
CHES	MILITARY HWY	SUFFOLK CL	I-664	EB	2.50			27,318	54,202		51,249	28,666	56,897	30,056	60,725	31,893	63,832	32,336	64,793	72,000	87,000	1.3%
CHES				WB				26,884				28,231		30,669		31,939		32,457				
CHES	SE EXPWY	BATTLEFIELD BLVD	CENTERVILLE TURNPIKE	EB	3.09													DNE			70,000	-
CHES				WB														DNE				

AGR - Annual Growth Rate

2003 Existing - includes the most recent traffic count available from 2001 to 2003.

Prepared by: Hampton Roads Planning District Commission

Appendix A: CMS Historical and Future Traffic Volumes – **INTERSTATES AND FREEWAYS/EXPRESSWAYS**

Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
						1997 (One-way)	1997 (Total)	1998 (One-way)	1998 (Total)	1999 (One-way)	1999 (Total)	2000 (One-way)	2000 (Total)	2001 (One-way)	2001 (Total)	2002 (One-way)	2002 (Total)	2003 (One-way)	2003 (Total)	2008 (Total)	2026 (Total)	
CHES	SE EXPWY	CENTERVILLE TNPK	VA BEACH CL	EB	3.41													DNE			75,700	-
CHES				WB														DNE				
HAM	I-64	NEWPORT NEWS CL	HRC PARKWAY	EB	2.24			67,698	128,992					74,361	145,972					168,000	185,000	1.0%
HAM				WB				61,294						71,611								
HAM	I-64	HRC PARKWAY	MAGRUDER BLVD	EB	0.77			57,055	110,410					65,819	122,792					141,000	163,000	1.1%
HAM				WB				53,355						56,973								
HAM	I-64	MAGRUDER BLVD	MERCURY BLVD	EB	1.04			70,248	129,221					74,144	142,540					164,000	187,000	1.1%
HAM				WB				58,973						68,396								
HAM	I-64	MERCURY BLVD	I-664	EB	0.96			68,097	136,194					69,546	137,942					153,000	175,000	1.0%
HAM				WB				68,097						68,396								
HAM	I-64	I-664	ARMISTEAD AVE	EB	0.88			52,874	102,326					62,611	119,153					137,000	137,000	0.6%
HAM				WB				49,452						56,542								
HAM	I-64	ARMISTEAD AVE	RIP RAP RD	EB	0.46			49,465	99,785					53,603	97,807					112,000	122,000	0.9%
HAM				WB				50,320						44,204								
HAM	I-64	RIP RAP RD	KING ST	EB	0.33			49,465	99,785					53,603	97,807					112,000	118,000	0.8%
HAM				WB				50,320						44,204								
HAM	I-64	KING ST	SETTLERS LANDING RD	EB	1.22			49,465	99,785					53,603	97,807					112,000	118,000	0.8%
HAM				WB				50,320						44,204								
HAM	I-64	SETTLERS LANDING RD	MALLORY ST	EB	0.54			49,219	99,485					52,599	97,619					112,000	119,000	0.8%
HAM				WB				50,266						45,020								
HAM	I-64/HRBT	MALLORY ST	NORFOLK CL	EB	3.69	42,700	83,100	42,238	83,034	43,089	84,122	43,451	85,266	45,205	88,551	45,630	90,113	46,288	91,225	101,000	107,000	0.7%
HAM				WB		40,400		40,796		41,033		41,815		43,346		44,483		44,937				
HAM	I-664	NEWPORT NEWS CL	ABERDEEN RD	EB	0.44			30,273	61,720					35,752	71,197					88,000	92,000	1.0%
HAM				WB				31,447						35,445								
HAM	I-664	ABERDEEN RD	POWHATAN PKWY	EB	1.29			29,755	64,549					38,401	76,834					95,000	96,000	0.9%
HAM				WB				34,794						38,433								
HAM	I-664	POWHATAN PKWY	I-64	EB	1.38			34,892	71,303					39,511	71,693					88,000	92,000	1.0%
HAM				WB				36,411						32,182								
IW	ROUTE 460 RELOCATED	SOUTHAMPTON CL	ROUTE 258	EB	6.18													DNE			27,800	-
IW				WB														DNE				
IW	ROUTE 460 RELOCATED	ROUTE 258	SUFFOLK CL	EB	3.56													DNE			42,900	-
IW				WB														DNE				
JCC	I-64	NEW KENT CL	RTE 30	EB	2.69			18,244	34,103					21,479	44,192					58,000	65,000	1.6%
JCC				WB				15,859						22,713								
JCC	I-64	RTE 30	CROAKER RD (RTE 607)	EB	4.34			18,873	36,698					21,628	40,750					54,000	70,000	2.2%
JCC				WB				17,825						19,122								
JCC	I-64	CROAKER RD (RTE 607)	YORK CL	EB	1.67			22,214	42,815					24,627	51,917					68,000	87,000	2.1%
JCC				WB				20,601						27,290								
JCC	I-64	YORK CL	NEWPORT NEWS CL	EB	2.38			33,300	69,662					36,132	78,634					97,000	119,000	1.7%
JCC				WB				36,362						42,502								
JCC	RTE 199	YORK CL	RICHMOND RD (RTE 60)	EB	0.16									7,183	15,000					18,000	25,000	2.1%
JCC				WB										7,817								
JCC	RTE 199	RICHMOND RD (RTE 60)	LONGHILL RD (RTE 612)	EB	2.94									7,460	14,863					18,000	24,000	1.9%
JCC				WB										7,403								
JCC	RTE 199	LONGHILL RD (RTE 612)	MONTICELLO AVE (RTE 321)	EB	1.89									9,943	20,000					23,000	25,000	0.9%
JCC				WB										10,057								
JCC	RTE 199	MONTICELLO AVE (RTE 321)	JOHN TYLER HWY (RTE 5)	EB	1.30									9,168	18,891					24,000	31,000	2.0%
JCC				WB										9,723								
NN	I-64	JAMES CITY CL	RTE 143 (NORTH)	EB	0.27			33,300	69,662					36,132	78,634					97,000	119,000	1.7%
NN				WB				36,362						42,502								
NN	I-64	RTE 143 (NORTH)	YORKTOWN RD	EB	0.88			34,067	68,284					36,449	75,676					93,000	116,000	1.7%
NN				WB				34,217						39,227								

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Prepared by: Hampton Roads Planning District Commission

Appendix A: CMS Historical and Future Traffic Volumes – **INTERSTATES AND FREEWAYS/EXPRESSWAYS**

Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
						1997 (One-way)	1997 (Total)	1998 (One-way)	1998 (Total)	1999 (One-way)	1999 (Total)	2000 (One-way)	2000 (Total)	2001 (One-way)	2001 (Total)	2002 (One-way)	2002 (Total)	2003 (One-way)	2003 (Total)	2008 (Total)	2026 (Total)	
NN	I-64	YORKTOWN RD	FT EUSTIS BLVD	EB	2.45			34,782	69,257				78,400	37,749	79,663					98,000	124,000	1.8%
NN				WB				34,475						41,914								
NN	I-64	FT EUSTIS BLVD	JEFFERSON AVE	EB	4.86			40,242	76,094				86,700	45,480	89,613					104,000	145,000	1.9%
NN				WB				35,852						44,133								
NN	I-64	JEFFERSON AVE	OYSTER POINT RD	EB	1.60			45,742	89,345				103,900	48,806	104,800					116,000	156,000	1.6%
NN				WB				43,603						55,994								
NN	I-64	OYSTER POINT RD	J C MORRIS BLVD	EB	1.64									60,857	120,261	62,008	122,760	61,554	123,615	136,000	161,000	1.2%
NN				WB										59,404		60,752		62,061				
NN	I-64	J C MORRIS BLVD	HAMPTON CL	EB	0.90			67,698	128,992					74,153	144,824					168,000	185,000	1.0%
NN				WB				61,294						70,671								
NN	I-664/MMMBT	SUFFOLK CL	TERMINAL AVE	EB	2.85	20,000	41,800	20,823	44,269	22,609	46,615	22,509	46,214	24,088	49,525	25,497	52,005	25,936	52,344	64,000	75,000	1.6%
NN				WB		21,800		23,446		24,006		23,705		25,437		26,508		26,408				
NN	I-664	TERMINAL AVE	23RD ST	EB	0.92					22,593	46,726					25,607	50,336			63,000	75,000	1.7%
NN				WB				24,133						24,729								
NN	I-664	23RD ST	CHESTNUT ST	EB	1.69			20,914	47,586					28,031	58,926					73,000	84,000	1.4%
NN				WB				26,672						30,895								
NN	I-664	CHESTNUT ST	HAMPTON CL	EB	0.24			27,636	59,083					35,625	71,070					88,000	84,000	0.7%
NN				WB				31,447						35,445								
NOR	I-64/HRBT	HAMPTON CL	OCEAN VIEW AVE	EB	0.19	42,700	83,100	42,238	83,034	43,089	84,122	43,451	85,266	45,205	88,551	45,630	90,113	46,288	91,225	101,000	107,000	0.7%
NOR				WB		40,400		40,796		41,033		41,815		43,346		44,483		44,937				
NOR	I-64	OCEAN VIEW AVE	4TH VIEW AVE	EB	1.82	42,700	83,100	42,238	83,034	43,089	84,122	43,451	85,266	45,205	88,551	45,630	90,113	46,288	91,225	101,000	104,000	0.6%
NOR				WB		40,400		40,796		41,033		41,815		43,346		44,483		44,937				
NOR	I-64	4TH VIEW AVE	BAY AVE	EB	1.01							38,097	76,150					45,793	88,062	97,000	90,000	0.1%
NOR				WB								38,053						42,269				
NOR	I-64	BAY AVE	GRANBY AVE	EB	1.60	41,765	83,530		91,181			45,376	88,208					51,024	98,260	108,000	100,000	0.1%
NOR				WB		41,765						42,832						47,236				
NOR	I-64	GRANBY ST	I-564/LITTLE CREEK RD	EB	0.21	41,765	83,530		107,768			45,376	88,208					51,024	98,260	108,000	96,000	-0.1%
NOR				WB		41,765						42,832						47,236				
NOR	I-64 HOV	I-564/LITTLE CREEK RD	TIDEWATER DR	HO						19,982		19,015						22,691				
NOR	I-64	I-564/LITTLE CREEK RD	TIDEWATER DR	EB								52,205	127,803					60,213	148,429	164,000	135,000	-0.4%
NOR	I-64	I-564/LITTLE CREEK RD	TIDEWATER DR	WB								56,583						65,525				
NOR	I-64 HOV	TIDEWATER DR	CHESAPEAKE BLVD	HO						19,982		19,015						22,691				
NOR	I-64	TIDEWATER DR	CHESAPEAKE BLVD	EB					153,578			55,339	123,824					63,353	139,350	154,000	132,000	-0.2%
NOR	I-64	TIDEWATER DR	CHESAPEAKE BLVD	WB								49,470						53,306				
NOR	I-64 HOV	CHESAPEAKE BLVD	NORVIEW AVE	HO						19,982		19,015						22,691				
NOR	I-64	CHESAPEAKE BLVD	NORVIEW AVE	EB								60,631	145,077					64,245	150,625	166,000	156,000	0.2%
NOR	I-64	CHESAPEAKE BLVD	NORVIEW AVE	WB								65,431						63,689				
NOR	I-64 HOV	NORVIEW AVE	MILITARY HWY	HO						19,982		19,015						22,691				
NOR	I-64	NORVIEW AVE	MILITARY HWY	EB					157,461			69,679	150,733					69,407	171,005	189,000	165,000	-0.2%
NOR	I-64	NORVIEW AVE	MILITARY HWY	WB								62,039						78,907				
NOR	I-64 HOV	MILITARY HWY	NORTHAMPTON BLVD	HO						19,982		19,015						22,691				
NOR	I-64	MILITARY HWY	NORTHAMPTON BLVD	EB								58,017	147,002					72,174	171,696	189,000	157,000	-0.4%
NOR	I-64	MILITARY HWY	NORTHAMPTON BLVD	WB								69,970						76,831				
NOR	I-64 HOV	NORTHAMPTON BLVD	I-264	HO								18,070						17,201				
NOR	I-64	NORTHAMPTON BLVD	I-264	EB					194,422			63,797	154,186					74,259	178,304	196,000	169,000	-0.2%
NOR	I-64	NORTHAMPTON BLVD	I-264	WB								72,319						86,844				
NOR	I-64 HOV	I-264	VA BEACH CL	HO						4,982		4,982						7,527				
NOR	I-64	I-264	VA BEACH CL	EB					135,347			65,351	135,684					67,699	142,018	165,000	151,000	0.3%
NOR	I-64	I-264	VA BEACH CL	WB								65,351						66,792				
NOR	I-264/DOWNTOWN TUNNEL	PORTSMOUTH CL	I-464	EB	0.40	44,100	92,400	43,992	90,582	45,329	94,333	51,581	98,549	50,410	103,639	47,923	100,052	48,960	101,429	108,000	128,000	1.0%
NOR				WB		48,300		46,590		49,004		46,968		53,229		52,129		52,469				

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Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
						1997 (One-way)	1997 (Total)	1998 (One-way)	1998 (Total)	1999 (One-way)	1999 (Total)	2000 (One-way)	2000 (Total)	2001 (One-way)	2001 (Total)	2002 (One-way)	2002 (Total)	2003 (One-way)	2003 (Total)	2008 (Total)	2026 (Total)	
NOR	I-264	I-464	WATERSIDE/CITY HALL/TIDEWATER	EB	0.72							55,620	109,789					57,301	121,818	131,000	142,000	0.7%
NOR				WB								54,169						64,517				
NOR	I-264	WATERSIDE/CITY HALL/TIDEWATER	BRAMBLETON AVE	EB	0.91							50,761	101,300					57,536	110,452	122,000	111,000	0.0%
NOR				WB								50,539						52,916				
NOR	I-264	BRAMBLETON AVE	BALLENTINE BLVD	EB	0.85							57,068	114,344					66,916	130,286	144,000	129,000	0.0%
NOR				WB								57,276						63,370				
NOR	I-264	BALLENTINE BLVD	MILITARY HWY	EB	2.43				93,734			55,409	107,949					70,287	136,330	150,000	118,000	-0.6%
NOR				WB								52,540						66,043				
NOR	I-264	MILITARY HWY	I-64	EB	0.78							55,409	107,949					70,287	136,330	150,000	153,000	0.5%
NOR				WB								52,540						66,043				
NOR	I-264	I-64	NEWTOWN RD/WCL VA. BEACH	EB	0.74				236,690			113,910	222,279					119,100	241,927	260,000	260,000	0.3%
NOR				WB								108,369						122,827				
NOR	I-464	NORFOLK CL	SOUTH MAIN ST	NB	0.42							25,198	44,207					27,273	50,253	58,000	64,000	1.1%
NOR				SB								19,009						22,980				
NOR	I-464	SOUTH MAIN ST	I-264	NB	0.61							21,236	40,880					24,220	45,138	52,000	59,000	1.2%
NOR				SB								19,644						20,918				
NOR	I-564	ADM TAUSSIG BLVD	FUTURE INTERMODAL CONNECTOR	NB	0.50				47,400			22,060	49,399					21,306	46,032	51,000	31,000	-1.7%
NOR				SB								27,339						24,726				
NOR	I-564	FUTURE INTERMODAL CONNECTOR	INTERNATIONAL TERMINAL BLVD	NB	1.37				47,400			22,060	49,399					21,306	46,032	51,000	45,000	-0.1%
NOR				SB								27,339						24,726				
NOR	I-564	INTERNATIONAL TERMINAL BLVD	I-64	NB	0.90									37,971	67,969			34,693	66,116	73,000	61,000	-0.3%
NOR				SB										29,998				31,423				
NOR	THIRD HR CROSSING (E-W)	PORTSMOUTH CL	SECOND ST	EB	1.25													DNE			29,300	-
NOR				WB														DNE				
NOR	THIRD HR CROSSING (E-W)	SECOND ST	HAMPTON BLVD	EB	0.83													DNE			29,300	-
NOR				WB														DNE				
NOR	THIRD HR CROSSING	HAMPTON BLVD	I-564	EB	0.66													DNE			21,000	-
NOR	(INTERMODAL CONN)			WB														DNE				
PORT	I-264	WCL PORTSMOUTH	GREENWOOD DR	EB	0.42	21,749	43,498	21,795	43,590			21,823	43,646					25,319	50,806	59,000	53,000	0.2%
PORT				WB		21,749		21,795				21,823						25,487				
PORT	I-264	GREENWOOD DR	VICTORY BLVD	EB	1.31							23,138	47,732					24,255	49,505	57,000	56,000	0.5%
PORT				WB								24,594						25,250				
PORT	I-264	VICTORY BLVD	PORTSMOUTH BLVD	EB	0.75			26,338	52,859	27,070	53,550	29,421	58,018	30,262	60,524	32,272	63,482	32,341	63,855	74,000	70,000	0.4%
PORT				WB				26,521		26,480		28,597		30,262		31,210		31,514				
PORT	I-264	PORTSMOUTH BLVD	FREDERICK BLVD	EB	0.91	31,559	63,118					31,895	65,041					34,582	68,321	75,000	74,000	0.3%
PORT				WB		31,559						33,146						33,739				
PORT	I-264	FREDERICK BLVD	FUTURE MLK FWY	EB	0.45							37,422	75,065					43,242	82,090	90,000	86,000	0.2%
PORT				WB								37,643						38,848				
PORT	I-264	FUTURE MLK FWY	DES MOINES AVE	EB	0.51							37,422	75,065					43,242	82,090	90,000	86,000	0.2%
PORT				WB								37,643						38,848				
PORT	I-264	DES MOINES AVE	EFFINGHAM ST	EB	0.72	32,632	65,264					35,737	72,094					43,462	79,072	87,000	83,000	0.2%
PORT				WB		32,632						36,357						35,610				
PORT	I-264/DOWNTOWN TUNNEL	EFFINGHAM ST	NORFOLK CL	EB	0.72	44,100	92,400	43,992	90,582	45,329	94,333	51,581	98,549	50,410	103,639	47,923	100,052	48,960	101,429	108,000	128,000	1.0%
PORT				WB		48,300		46,590		49,004		46,968		53,229		52,129		52,469				
PORT	M L K FREEWAY	HIGH ST	LONDON BLVD	NB	0.25							12,382	25,937					11,912	25,963	31,000	34,000	1.2%
PORT				SB								13,555						14,051				
PORT	M L K FREEWAY	LONDON BLVD	WESTERN FREEWAY/MIDTOWN TUNNEL	NB	0.98	11,948	24,462					12,132	23,976							33,000	43,000	2.3%
PORT				SB		12,514						11,844										
PORT	THIRD HR CROSSING (E-W)	SUFFOLK CL	NORFOLK CL	EB	4.30													DNE			29,300	-
PORT				WB														DNE				
PORT	WESTERN FWY	SUFFOLK CL	TOWN POINT RD	EB	1.01							15,943	31,590					18,035	36,421	45,000	66,000	2.6%
PORT				WB								15,647						18,386				

AGR - Annual Growth Rate

2003 Existing - includes the most recent traffic count available from 2001 to 2003.

Prepared by: Hampton Roads Planning District Commission

Appendix A: CMS Historical and Future Traffic Volumes – **INTERSTATES AND FREEWAYS/EXPRESSWAYS**

Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
						1997 (One-way)	1997 (Total)	1998 (One-way)	1998 (Total)	1999 (One-way)	1999 (Total)	2000 (One-way)	2000 (Total)	2001 (One-way)	2001 (Total)	2002 (One-way)	2002 (Total)	2003 (One-way)	2003 (Total)	2008 (Total)	2026 (Total)	
PORT	WESTERN FWY	TOWN POINT RD	CEDAR LN	EB	1.31							15,943	31,590					18,035	36,421	45,000	79,000	3.4%
PORT				WB								15,647						18,386				
PORT	WESTERN FWY	CEDAR LN	CRANEY ISLAND CONNECTOR	EB	1.00			15,803	31,205		30,845	15,803	31,606	16,867	33,627	13,278	28,201	11,794	24,427	48,000	78,000	5.2%
PORT				WB				15,402				15,803		16,760		14,923		12,633				
PORT	WESTERN FWY	CRANEY ISLAND CONNECTOR	WEST NORFOLK RD	EB	0.61			15,803	31,205		30,845	15,803	31,606	16,867	33,627	13,278	28,201	11,794	24,427	48,000	78,000	5.2%
PORT				WB				15,402				15,803		16,760		14,923		12,633				
PORT	WESTERN FWY	WEST NORFOLK RD	MLK FREEWAY/MIDTOWN TUNNEL	EB	1.78			15,803	31,205		30,845	15,803	31,606	16,867	33,627	13,278	28,201	11,794	24,427	48,000	77,000	5.1%
PORT				WB				15,402				15,803		16,760		14,923		12,633				
SUF	I-664	CHESAPEAKE CL	BRIDGE RD	EB	0.74					30,453	60,906	30,453	60,522					33,821		78,000	83,000	0.9%
SUF				WB						30,453		30,069						33,821				
SUF	I-664	BRIDGE RD	WESTERN FWY	EB	0.15					21,908	45,419	30,453	60,522					33,821		78,000	74,000	0.4%
SUF				WB						23,511		30,069						33,821				
SUF	I-664	WESTERN FWY	COLLEGE DR	EB	1.41			19,661	40,549	21,908	45,419	21,573	44,855	25,633	50,480	27,227	55,255	26,449	54,019	62,000	69,000	1.1%
SUF				WB				20,888		23,511		23,282		24,847		28,028		27,570				
SUF	I-664/MMMBT	COLLEGE DR	NEWPORT NEWS CL	EB	3.28	20,000	41,800	20,823	44,269	22,609	46,615	22,509	46,214	24,088	49,525	25,497	52,005	25,936	52,344	60,000	75,000	1.6%
SUF				WB		21,800		23,446		24,006		23,705		25,437		26,508		26,408				
SUF	MILITARY HWY	SUFFOLK BYPASS	CHESAPEAKE CL	EB	3.61			27,318	54,202		51,249	28,666	56,897	30,056	60,725	31,893	63,832	32,336	64,793	72,000	85,000	1.2%
SUF				WB				26,884				28,231		30,669		31,939		32,457				
SUF	ROUTE 460 RELOCATED	SUFFOLK BYPASS	ISLE OF WIGHT CL	EB	5.13													DNE			29,300	-
SUF				WB														DNE				
SUF	SOUTHWEST SUFFOLK BYPASS	HOLLAND RD	CAROLINA RD	EB	2.55													4,650	9,300	12,000	6,000	-1.9%
SUF				WB														4,650				
SUF	SUFFOLK BYPASS	HOLLAND RD	PITCHKETTLE RD	EB	1.69						26,666					13,893	28,461			32,000	41,000	1.5%
SUF				WB												14,568						
SUF	SUFFOLK BYPASS	PITCHKETTLE RD	PRUDEN BLVD	EB	1.63						28,319					14,749	30,195			34,000	40,000	1.2%
SUF				WB												15,446						
SUF	SUFFOLK BYPASS	PRUDEN BLVD	GODWIN BLVD	EB	1.06						37,211					19,510	38,145			41,000	55,000	1.5%
SUF				WB												18,635						
SUF	SUFFOLK BYPASS	GODWIN BLVD	WILROY RD	EB	1.85						44,975					22,682	45,605			49,000	69,000	1.7%
SUF				WB												22,923						
SUF	SUFFOLK BYPASS	WILROY RD	MILITARY HWY	EB	2.02						33,234					18,364	36,635			41,000	54,000	1.6%
SUF				WB												18,271						
SUF	THIRD HR CROSSING (E-W)	I-664	PORTSMOUTH CL	EB	0.50													DNE			29,300	-
SUF				WB														DNE				
SUF	WESTERN FWY	BRIDGE RD	I-664	EB	0.74						16,804					9,359	18,718			24,000	33,000	2.4%
SUF				WB												9,359						
SUF	WESTERN FWY	I-664	COLLEGE DR	EB	0.57						24,123					14,464	28,235			34,000	50,000	2.4%
SUF				WB												13,771						
SUF	WESTERN FWY	COLLEGE DR	PORTSMOUTH CL	EB	0.20							15,943	31,590					18,035	36,421	45,000	66,000	2.6%
SUF				WB								15,647						18,386				
VB	I-264	NEWTOWN RD/ECL NORFOLK	WITCHDUCK RD	EB	1.47				213,188			100,352	203,670					105,518	215,046	232,000	216,000	0.0%
VB				WB								103,318						109,528				
VB	I-264	WITCHDUCK RD	INDEPENDENCE BLVD	EB	1.27				202,751			98,117	195,912					110,474	218,988	236,000	213,000	-0.1%
VB				WB								97,795						108,514				
VB	I-264	INDEPENDENCE BLVD	ROSEMONT RD	EB	2.36				156,344			76,126	153,605					85,790	174,480	188,000	179,000	0.1%
VB				WB								77,479						88,690				
VB	I-264	ROSEMONT RD	LYNNHAVEN PKWY	EB	1.72							62,699	130,050					69,853	145,210	156,000	146,000	0.0%
VB				WB								67,351						75,357				
VB	I-264	LYNNHAVEN PKWY	LASKIN RD	EB	1.48							52,741	103,714					61,209	114,238	123,000	116,000	0.1%
VB				WB								50,973						53,029				
VB	I-264	LASKIN RD	FIRST COLONIAL RD	EB	1.19		73,773					37,127	75,040					37,072	81,537	90,000	89,000	0.4%
VB				WB								37,913						44,465				

AGR - Annual Growth Rate

2003 Existing - includes the most recent traffic count available from 2001 to 2003.

Prepared by: Hampton Roads Planning District Commission

Appendix A: CMS Historical and Future Traffic Volumes – **INTERSTATES AND FREEWAYS/EXPRESSWAYS**

Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
						1997 (One-way)	1997 (Total)	1998 (One-way)	1998 (Total)	1999 (One-way)	1999 (Total)	2000 (One-way)	2000 (Total)	2001 (One-way)	2001 (Total)	2002 (One-way)	2002 (Total)	2003 (One-way)	2003 (Total)	2008 (Total)	2026 (Total)	
VB	I-264	FIRST COLONIAL RD	S.E. PARKWAY	EB	0.92							26,649	52,709					34,308	67,315	74,000	78,000	0.6%
VB				WB								26,060						33,007				
VB	I-264	S.E. PARKWAY	BIRDNECK RD	EB	0.56							26,649	52,709					34,308	67,315	74,000	61,000	-0.4%
VB				WB								26,060						33,007				
VB	I-264	BIRDNECK RD	PARKS AVE	EB	0.49							12,524	23,163					16,727	28,084	31,000	35,000	1.0%
VB				WB								10,639						11,357				
VB	I-64	NORFOLK CL	INDIAN RIVER RD	EB	1.57				135,347			64,715	135,684					71,462	142,018	165,000	151,000	0.3%
VB				WB								65,351						70,556				
VB	I-64	INDIAN RIVER RD	CHESEAPEAKE CL	EB	1.36	57,339	114,678		120,240			61,512	119,698					61,479	128,511	142,000	119,000	-0.3%
VB				WB		57,339						58,186						67,032				
VB	SE EXPWY	WCL VA BEACH	INDIAN RIVER RD	EB	0.46													DNE			75,200	-
VB				WB														DNE				
VB	SE EXPWY	INDIAN RIVER RD	PRINCESS ANNE RD	EB	2.74													DNE			42,000	-
VB				WB														DNE				
VB	SE EXPWY	PRINCESS ANNE RD	DAM NECK RD	EB	3.50													DNE			33,000	-
VB				WB														DNE				
VB	SE EXPWY	DAM NECK RD	OCEANA RD	EB	1.72													DNE			23,000	-
VB				WB														DNE				
VB	SE EXPWY	OCEANA RD	I-264	EB	3.33													DNE			38,000	-
VB				WB														DNE				
YC	I-64	JAMES CITY CL	RTE 199/646	EB	1.12			22,214	42,815				57,100	24,627	51,917					68,000	87,000	2.1%
YC				WB				20,601						27,290								
YC	I-64	RTE 199/646	RTE 143	EB	4.29								56,100	23,078	49,744					65,000	80,000	1.9%
YC				WB										26,666								
YC	I-64	RTE 143	RTE 199 (EAST OF WILLIAMSBURG)	EB	3.88			24,312	49,489				57,000	28,197	56,649					74,000	80,000	1.4%
YC				WB				25,177						28,452								
YC	I-64	RTE 199 (EAST OF WILLIAMSBURG)	GROVE CONNECTOR	EB	1.14			33,300	60,658				75,900	36,132	78,634					97,000	134,000	2.2%
YC				WB				27,358						42,502								
YC	I-64	GROVE CONNECTOR	JAMES CITY CL	EB	0.85			33,300	60,658				75,900	36,132	78,634					97,000	119,000	1.7%
YC				WB				27,358						42,502								
YC	RTE 199	JCC LINE (WESTSIDE)	MOORETOWN RD	EB	0.57									7,183	15,000					18,000	25,000	2.1%
YC				WB										7,817								
YC	RTE 199	MOORETOWN RD	I-64	EB	0.85									9,274	18,623					22,000	29,000	1.8%
YC				WB										9,349								

*Note: Some 2026 roadway volumes have been updated based on study projections from regional projects.

Traffic Data Sources: Virginia Department of Transportation and Hampton Roads Jurisdictions

APPENDIX B

CMS Historical and Future Traffic Volumes – Arterials and Collectors

Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
CHES	22ND ST	LIBERTY ST	BERKLEY AVE/NORFOLK CL	0.31	11,471		7,675		6,198			6,741		6,594			6,711		7,000	8,000	0.7%
CHES	AIRLINE BLVD	I-664	JOLLIFF RD	0.38	8,218		10,258					9,700					10,200		11,000	17,000	2.2%
CHES	AIRLINE BLVD	JOLLIFF RD	PORTSMOUTH CL	1.78	9,183		10,866		11,610			7,634		11,792	11,104		9,040		11,000	17,000	2.7%
CHES	ATLANTIC AVE	CAMPOSTELLA RD	PROVIDENCE RD	0.38	8,444		10,836		11,615			12,860		12,614	21,946		20,037		21,000	15,000	-1.2%
CHES	ATLANTIC AVE	PROVIDENCE RD	OLD ATLANTIC AVE	1.07	8,444		10,836		11,615			12,860		14,828			17,556		21,000	17,000	-0.1%
CHES	ATLANTIC AVE	OLD ATLANTIC AVE	CAMPOSTELLA RD	0.57	8,444		10,836		11,615			12,860		14,828			10,620		11,000	7,000	-1.7%
CHES	BAINBRIDGE BLVD	DOMINION BLVD	GREAT BRIDGE BLVD	2.05	4,119		3,957		4,288			4,600		5,156			4,579		7,000	11,000	3.7%
CHES	BAINBRIDGE BLVD	GREAT BRIDGE BLVD	MILITARY HWY	0.68	9,612		7,891		7,850			0		9,976			8,707		11,000	12,000	1.3%
CHES	BAINBRIDGE BLVD	MILITARY HWY	FREEMAN AVE	0.70	12,727		12,167		10,837					10,894			11,068		11,000	11,000	0.0%
CHES	BAINBRIDGE BLVD	FREEMAN AVE	SWAIN AVE	0.94	12,727		12,167		10,837			9,760		10,184			11,068		11,000	13,000	0.7%
CHES	BAINBRIDGE BLVD	SWAIN AVE	CHESAPEAKE DR	0.20	11,376		11,178		10,452			9,760		10,184			11,068		11,000	11,000	0.0%
CHES	BAINBRIDGE BLVD	CHESAPEAKE DR	POINDEXTER ST	0.93													10,072		11,000	11,000	0.4%
CHES	BAINBRIDGE BLVD	POINDEXTER ST	NORFOLK CL	0.53										2,096			1,687		2,000	2,000	0.7%
CHES	BATTLEFIELD BLVD	NORTH CAROLINA STATE LINE	BALLAHACK RD	0.50	13,582		14,438		14,664				15,385	18,452	17,319	16,415	18,092	19,244	23,000	23,000	0.8%
CHES	BATTLEFIELD BLVD	BALLAHACK RD	GALLBUSH RD	1.00	13,582		14,438		14,664					18,452	17,319	16,415	18,092	19,244	23,000	23,000	0.8%
CHES	BATTLEFIELD BLVD	GALLBUSH RD	INDIAN CREEK RD	2.63	17,595		17,938		18,396			20,953		19,146			11,974		13,000	13,000	0.3%
CHES	BATTLEFIELD BLVD	INDIAN CREEK RD	CENTERVILLE TNPK	1.54	17,595		17,938		18,396			20,953		21,541			14,729		15,000	18,000	0.8%
CHES	BATTLEFIELD BLVD	CENTERVILLE TNPK	HILLCREST PKWY	2.05	13,974		15,533		15,949			0		20,534			16,294		17,000	28,000	2.3%
CHES	BATTLEFIELD BLVD	HILLCREST PKWY	PEACEFUL RD/HILLWELL RD	1.61	13,974		15,533		15,949			0		20,534				7,260	9,000	10,000	1.4%
CHES	BATTLEFIELD BLVD	PEACEFUL RD/HILLWELL RD	HANBURY RD	0.57	13,974		15,533		15,949			0		20,534	4,717			10,888	15,000	14,000	1.1%
CHES	BATTLEFIELD BLVD	HANBURY RD	JOHNSTOWN RD	1.61	7,203		8,270		9,435			0		12,478			7,489		11,000	11,000	1.6%
CHES	BATTLEFIELD BLVD	JOHNSTOWN RD	CEDAR RD	0.28	21,585		29,385		33,376			31,385		33,569			31,684		34,000	41,000	1.1%
CHES	BATTLEFIELD BLVD	CEDAR RD	ALBEMARLE DR	0.14										42,619			34,348		38,000	37,000	0.3%
CHES	BATTLEFIELD BLVD	ALBEMARLE DR	WAYNE AVE	0.44										42,619			34,348		38,000	43,000	0.9%
CHES	BATTLEFIELD BLVD	WAYNE AVE	GREAT BRIDGE BLVD	0.62	28,741		30,735		36,251					42,619	33,498		34,348		38,000	43,000	0.9%
CHES	BATTLEFIELD BLVD	GREAT BRIDGE BLVD	GREAT BRIDGE BYPASS	0.19										32,652			35,238		42,000	50,000	1.5%
CHES	BATTLEFIELD BLVD	GREAT BRIDGE BYPASS	VOLVO PKWY	1.97	46,022		47,200		56,391			0	58,116	48,404		45,095	43,567		58,000	54,000	0.9%
CHES	BATTLEFIELD BLVD	VOLVO PKWY	I-64	0.65	46,232		55,560		69,203					60,004	64,198				70,000	64,000	0.0%
CHES	BATTLEFIELD BLVD	I-64	MILITARY HWY	0.76			26,908		33,233				35,796	35,223	39,721	39,419	44,695	41,523	45,000	44,000	0.3%
CHES	BATTLEFIELD BLVD	MILITARY HWY	CAMPOSTELLA RD	0.56	16,962		15,866		17,886			10,760		22,224			28,000		29,000	25,000	-0.5%
CHES	BENEFIT RD	JOHNSTOWN RD	SIGN PINE RD	1.80					1,430					2,218			1,714		6,000	8,000	6.6%
CHES	BLACKWATER RD	VIRGINIA BEACH CL	FENTRESS AIRFIELD RD	2.59										2,856			2,967		3,000	7,000	3.6%
CHES	BRIDGE RD	SUFFOLK CL	CHURCHLAND BLVD	0.61	28,000		28,531		22,863				17,667	20,035	19,398	19,604	21,658	22,415	24,000	25,000	0.5%
CHES	BRUCE RD	TAYLOR RD	TYRE NECK RD	1.60	9,086		10,333		10,475					13,442			12,380		13,000	13,000	0.2%
CHES	BUTTS STATION RD	KEMPSVILLE RD	CENTERVILLE TNPK	2.08	7,075		8,471		9,499			11,298		14,754			11,370		18,000	16,000	1.4%
CHES	CAMPOSTELLA RD	GREAT BRIDGE BLVD	MILITARY HWY	1.32	7,957		6,975		6,275			6,116		7,614			6,900		8,000	9,000	1.1%
CHES	CAMPOSTELLA RD	MILITARY HWY	BATTLEFIELD BLVD	1.06	13,303		11,777		12,183			10,120		12,548			12,527		12,000	13,000	0.2%
CHES	CAMPOSTELLA RD	BATTLEFIELD BLVD	PROVIDENCE RD	0.44								18,460		13,982			14,156		14,000	15,000	0.2%
CHES	CAMPOSTELLA RD	PROVIDENCE RD	ATLANTIC AVE	1.47	18,221		17,133		17,133			18,460		15,554			14,681		16,000	17,000	0.6%
CHES	CAMPOSTELLA RD	ATLANTIC AVE	NORFOLK CL/BERKELY AVE EXT	0.34	13,090		12,511		13,217			12,550		16,912			20,539		21,000	18,000	-0.5%

AGR - Annual Growth Rate

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Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
CHES	CANAL DR	MILITARY HWY	GEORGE WASHINGTON HWY	0.97	11,342		11,223		12,786			12,562					13,976		15,000	19,000	1.3%
CHES	CAVALIER BLVD	MILITARY HWY	PORTSMOUTH CL	1.24	8,393		12,319		11,946			10,523		12,457			12,768		13,000	19,000	1.7%
CHES	CEDAR RD	GEORGE WASHINGTON HWY	SHIPYARD RD/RELOCATED GW HWY	0.32	10,064		10,136		12,369			0		15,398			13,974		19,000	51,000	5.5%
CHES	CEDAR RD	SHIPYARD RD	WEST RD	1.94	10,064		10,136		12,369			0		10,000			9,862		8,000	16,000	2.0%
CHES	CEDAR RD	WEST RD	DOMINION BLVD	1.33													11,101		10,000	16,000	1.5%
CHES	CEDAR RD	DOMINION BLVD	BRIARFIELD DR	3.38	15,396		17,677		19,937			22,313		22,313			23,205		30,000	45,000	2.8%
CHES	CEDAR RD	BRIARFIELD DR	BATTLEFIELD BLVD	0.79	17,164		19,455		21,835					25,202			23,327		25,000	31,000	1.2%
CHES	CEDAR RD RELOCATED	G.W. HWY RELOCATED	DOMINION BLVD	2.19											DNE			DNE	12,000	25,000	-
CHES	CENTERVILLE TNPK	BATTLEFIELD BLVD	ETHRIDGE MANOR BLVD	3.75			4,925		5,209			6,078		7,621			6,354		7,000	11,000	2.3%
CHES	CENTERVILLE TNPK	ETHRIDGE MANOR BLVD	MT PLEASANT RD	2.15	6,836		7,783		7,579					7,621			12,504		18,000	20,000	2.0%
CHES	CENTERVILLE TNPK	MT PLEASANT RD	BUTTS STATION RD	1.27			13,685		14,872					15,681	16,161		15,979		19,000	21,000	1.1%
CHES	CENTERVILLE TNPK	BUTTS STATION RD	ELBOW RD	0.45	7,271		8,454		8,580			9,609		9,731			9,328		11,000	16,000	2.3%
CHES	CENTERVILLE TNPK	ELBOW RD	S.E. PARKWAY	0.45										8,773	9,201		7,767		12,000	23,000	4.6%
CHES	CENTERVILLE TNPK	S.E. PARKWAY	VA BEACH CL	0.95										8,773	9,201		7,767		12,000	21,000	4.2%
CHES	CHURCHLAND BLVD	WESTERN BRANCH BLVD	TOWN POINT RD	0.59	8,509		11,418		6,685			6,996		5,379			6,190		6,200	8,000	1.1%
CHES	CHURCHLAND BLVD	TOWN POINT RD	PORTSMOUTH CL	0.11										13,412	13,291	10,601	15,049	17,258	16,000	15,000	-0.6%
CHES	DOCK LANDING RD	JOLLIFF RD	I-664	0.39													5,547		8,000	10,000	2.5%
CHES	DOCK LANDING RD	I-664	EAGLE HILL DR	0.74			3,897		4,094					4,982			6,060		7,000	7,000	0.6%
CHES	DOCK LANDING RD	EAGLE HILL DR	PORTSMOUTH BLVD	2.44	5,680		7,711		5,651					5,375			6,518		7,000	7,000	0.3%
CHES	DOMINION BLVD	GEORGE WASHINGTON HWY	CEDAR RD	4.00	5,733		6,372		6,451			6,500		7,188	6,930		8,413		10,000	12,000	1.5%
CHES	DOMINION BLVD	CEDAR RD	BAINBRIDGE BLVD	0.93	20,363		20,593		22,221				23,655	22,691	25,994	28,531	28,253	28,411	32,000	46,000	2.1%
CHES	DOMINION BLVD	BAINBRIDGE BLVD	GREAT BRIDGE BLVD	1.62	18,517		19,752		20,063			23,000		23,764			26,440		30,000	36,000	1.3%
CHES	DOMINION BLVD	GREAT BRIDGE BLVD	I-464/OAK GROVE CONNECTOR	0.30	29,604		33,040		36,397			42,000			42,044				46,000	64,000	1.6%
CHES	EDINBURGH PKWY	SIGN PINE RD	HILLCREST PKWY	0.80														2,455	9,000	12,000	7.1%
CHES	ELBOW RD	CENTERVILLE TNPK	VA BEACH CL	2.85	2,865		3,449		4,076			3,371		4,667	4,689	4,765	5,213	5,096	6,000	0	-
CHES	ETHRIDGE MANOR RD	HILLWELL RD	CENTERVILLE TPKE	1.99					1,305					6,785			9,935		19,000	14,000	1.4%
CHES	FENTRESS AIRFIELD RD	BLACKWATER RD	MOUNT PLEASANT RD	0.16	4,052		4,115		4,371					4,586			4,661	4,593	5,000	9,000	3.0%
CHES	FREEMAN AVE	I-464	BAINBRIDGE BLVD	0.20										12,681			10,710		12,000	15,000	1.4%
CHES	GEORGE WASHINGTON HWY	NORTH CAROLINA STATE LINE	DOMINION BLVD	9.83	7,153		9,458		9,115			9,800	7,984	7,495	8,484	8,766	9,131	9,885	13,000	16,000	2.1%
CHES	GEORGE WASHINGTON HWY	DOMINION BLVD	CEDAR RD @ HINTON AVE	3.38	3,063		3,950		3,764			3,500		3,712	5,595		3,917		6,000	12,000	4.8%
CHES	GEORGE WASHINGTON HWY	CEDAR RD @ HINTON AVE	MILL CREEK PKWY	0.10	23,011		20,768		22,499					27,495		26,567	22,857		28,000	51,000	3.4%
CHES	GEORGE WASHINGTON HWY	MILL CREEK PKWY	WILLOWOOD DR	0.80	23,011		20,768		22,499					27,495		26,567	22,857		28,000	49,000	3.2%
CHES	GEORGE WASHINGTON HWY	WILLOWOOD DR	I-64	0.38	23,011		20,768		22,499					27,495		26,567	22,857		28,000	46,000	3.0%
CHES	GEORGE WASHINGTON HWY	I-64	MILITARY HWY	0.94	16,461		18,545		20,019					28,609			22,577		25,000	34,000	1.7%
CHES	GEORGE WASHINGTON HWY	MILITARY HWY	CANAL DR	0.98	15,892		17,725		20,370			21,000				14,798			15,000	18,000	0.8%
CHES	GEORGE WASHINGTON HWY	CANAL DR	PORTSMOUTH CL	0.61	23,993		25,609		27,459			0		26,757	30,660		26,900		30,000	36,000	1.2%
CHES	GEORGE WASH HWY RELOCATED	GEORGE WASHINGTON HWY	CEDAR RD	0.56											DNE			DNE		13,000	-
CHES	GREAT BRIDGE BLVD	BAINBRIDGE BLVD	CAMPOSTELLA RD	0.84	4,340		4,641		4,621			4,727		5,962			4,801		6,000	9,000	2.7%
CHES	GREAT BRIDGE BLVD	CAMPOSTELLA RD	I-64	0.30	4,340		4,641		4,621			4,727		5,962			8,800		9,000	9,000	0.1%
CHES	GREAT BRIDGE BLVD	I-64	DOMINION BLVD	0.26								9,200		10,480			11,912		12,000	20,000	2.2%

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					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
CHES	GREAT BRIDGE BLVD	DOMINION BLVD	RIVERWALK PKWY WEST	0.50	15,563		15,205		15,692			19,673		20,495	9,203		9,282		11,000	26,000	4.4%
CHES	GREAT BRIDGE BLVD	RIVERWALK PKWY WEST	BATTLEFIELD BLVD	1.82	15,563		15,205		15,692			19,673		20,495	9,203		9,282		11,000	11,000	0.7%
CHES	GREENBRIER PKWY	KEMPSVILLE RD	VOLVO PKWY	1.86	15,977		16,426		18,927			26,852		24,510	13,789		22,513		26,000	28,000	0.9%
CHES	GREENBRIER PKWY	VOLVO PKWY	EDEN WAY	0.41	33,577		35,550		36,306					43,629	43,421		42,268		45,000	45,000	0.3%
CHES	GREENBRIER PKWY	EDEN WAY	I-64	0.69	33,577		35,550		54,622					82,280			78,141		81,000	82,000	0.2%
CHES	GREENBRIER PKWY	I-64	MILITARY HWY	0.76	44,474		45,176		51,090					33,222			34,358		36,000	37,000	0.3%
CHES	HANBURY RD	JOHNSTOWN RD	BATTLEFIELD BLVD	1.01					5,188					6,431			7,860		9,500	10,000	1.0%
CHES	HANBURY RD	BATTLEFIELD BLVD	HILLWELL RD	0.64														15,487	19,000	14,000	-0.4%
CHES	HILLCREST PKWY	EDINBURGH PKWY	CHESAPEAKE EXPRESSWAY	0.36														2,455	13,000	14,000	7.9%
CHES	HILLCREST PKWY	CHESAPEAKE EXPRESSWAY	BATTLEFIELD BLVD	0.30											DNE			11,652	15,000	20,000	2.4%
CHES	INDIAN RIVER RD	NORFOLK CL	TATEMSTOWN RD	0.39	21,515		17,893		19,070					23,165	21,215		24,307		25,000	25,000	0.1%
CHES	INDIAN RIVER RD	TATEMSTOWN RD	VA BEACH CL	1.22	33,785		28,237		30,527			24,244		34,632	32,543	32,945	33,040	35,252	36,000	36,000	0.1%
CHES	JOHNSTOWN RD	BENEFIT RD	STONEGATE PKWY	3.85	4,779		5,949		7,994					3,922			3,603		5,000	10,000	4.3%
CHES	JOHNSTOWN RD	STONEGATE PKWY	HANBURY RD	1.27	4,779		5,949		7,994								10,392		13,000	12,000	0.6%
CHES	JOHNSTOWN RD	HANBURY RD	PARKER RD	0.76	4,779		5,949		7,994									9,238	11,000	9,000	-0.1%
CHES	JOHNSTOWN RD	PARKER RD	BATTLEFIELD BLVD	0.49	4,779		5,949		7,994								14,944		18,000	19,000	1.0%
CHES	JOLLIFF RD	AIRLINE BLVD	DOCK LANDING RD	2.22	8,458		2,884		2,597			2,008		2,706			3,285		5,000	8,000	3.8%
CHES	JOLLIFF RD	DOCK LANDING RD	PORTSMOUTH BLVD	0.90	8,458		2,884		2,597			1,872		2,620			2,879		4,000	9,000	4.9%
CHES	KEMPSVILLE RD	BATTLEFIELD BLVD	GREENBRIER PKWY	1.27	15,560		15,561		16,972			18,830		17,421			18,163		30,000	33,000	2.5%
CHES	KEMPSVILLE RD	GREENBRIER PKWY	VOLVO PKWY	1.89	15,560		15,561		16,972					26,171			15,000		35,000	42,000	4.4%
CHES	KEMPSVILLE RD	VOLVO PKWY	VA BEACH CL	0.38	18,244		21,209		24,316					26,922		0	27,367	29,819	43,000	34,000	0.6%
CHES	LIBERTY ST	SCL NORFOLK	22ND ST	0.36								7,474			4,371			4,978	5,000	5,000	0.0%
CHES	LIBERTY ST	22ND ST	POINDEXTER RD	0.06	10,124		11,364		12,067					9,397			9,693		10,000	20,000	3.1%
CHES	LIBERTY ST	POINDEXTER RD	OLD ATLANTIC AVE	0.37	10,124		11,364		12,067					9,397			9,693		10,000	11,000	0.5%
CHES	LIBERTY ST	OLD ATLANTIC AVE	CAMPOSTELLA RD	0.37	10,124		11,364		12,067			6,681		10,598			5,698		6,000	11,000	2.8%
CHES	MILITARY HWY	AIRLINE BLVD	I-64	3.28	5,997		6,352		6,244			6,048		7,641	10,117		8,101		9,000	16,000	2.9%
CHES	MILITARY HWY	I-64	CAVALIER BLVD	0.30			12,000		14,410			16,000		14,608			14,542		16,000	23,000	1.9%
CHES	MILITARY HWY	CAVALIER BLVD	GEORGE WASHINGTON HWY	0.91			12,336		14,410			15,000		15,740			17,061		18,000	22,000	1.1%
CHES	MILITARY HWY	GEORGE WASHINGTON HWY	CANAL DR	1.01	13,299		13,964		15,125			17,000		17,289			18,398		19,000	28,000	1.8%
CHES	MILITARY HWY	CANAL DR	BAINBRIDGE BLVD	2.18	23,738		23,640		27,148				27,674	31,080	30,550	32,024	34,648	34,491	36,000	39,000	0.5%
CHES	MILITARY HWY	BAINBRIDGE BLVD	I-464	0.46	19,206		23,961		25,963								26,818		29,000	31,000	0.6%
CHES	MILITARY HWY	I-464	CAMPOSTELLA RD	0.64	20,000		23,022		24,920			34,000		25,621	27,982		26,818		29,000	32,000	0.7%
CHES	MILITARY HWY	CAMPOSTELLA RD	BATTLEFIELD BLVD	0.60	34,033		34,567		33,383			34,000		29,207			28,579		30,000	31,000	0.3%
CHES	MILITARY HWY	BATTLEFIELD BLVD	ALLISON DR	0.66	34,033		34,567		33,383			33,000		30,415			31,964		33,000	35,000	0.4%
CHES	MILITARY HWY	ALLISON DR	GREENBRIER PKWY	0.50	34,003		34,744		33,383			33,000		33,590			34,312		36,000	39,000	0.5%
CHES	MILITARY HWY	GREENBRIER PKWY	VA BEACH CL	1.68	34,003		34,744		34,770					34,644			36,344		37,000	39,000	0.3%
CHES	MOUNT PLEASANT RD	BATTLEFIELD BLVD	CHESAPEAKE EXPRESSWAY	0.76	11,970		13,915		17,156			18,000		17,920		25,088	18,640		25,000	35,000	2.7%
CHES	MOUNT PLEASANT RD	CHESAPEAKE EXPRESSWAY	CENTERVILLE TNPK	2.43	18,007		19,088		21,116			15,862		20,857			17,950		21,000	35,000	2.8%
CHES	MOUNT PLEASANT RD	CENTERVILLE TNPK	FENTRESS AIRFIELD RD	4.53	6,801		8,111		9,475			9,137		10,372			10,524	9,655	11,000	10,000	0.2%
CHES	MOUNT PLEASANT RD	FENTRESS AIRFIELD RD	VA BEACH CL	0.91	6,801		8,111		9,475			24,037		9,902			10,029	10,134	11,000	12,000	0.7%

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					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
CHES	OLD ATLANTIC AVE	ATLANTIC AVE	LIBERTY ST	0.31	8,444		10,836		11,615			12,000		10,514			5,978		6,000	12,000	2.9%
CHES	POINDEXTER ST	PORTSMOUTH CL	I-464	0.85	10,218		9,000		7,880			0			6,496		8,173	7,919	9,000	14,000	2.5%
CHES	POINDEXTER ST	I-464	BAINBRIDGE BLVD	0.20	8,428		12,529		10,093			8,470		14,022			9,000		10,000	17,000	2.7%
CHES	POINDEXTER ST	BAINBRIDGE BLVD	LIBERTY ST	0.48	10,218		9,542		7,880			8,499		10,317	8,860		9,757		10,000	11,000	0.5%
CHES	PORTSMOUTH BLVD	SUFFOLK CL	JOLLIFF RD	0.75			8,270		20,372		10,306	10,238		11,761			13,017		16,000	24,000	2.6%
CHES	PORTSMOUTH BLVD	JOLLIFF RD	I-664	0.60			8,500		20,372					14,642			18,660		21,000	27,000	1.6%
CHES	PORTSMOUTH BLVD	I-664	TAYLOR RD	1.34			22,141		20,346			22,639		24,619			27,056		29,000	30,000	0.4%
CHES	PORTSMOUTH BLVD	TAYLOR RD	PORTSMOUTH CL	0.70			22,141		20,346					34,201			32,927		34,000	36,000	0.4%
CHES	PROVIDENCE RD	ATLANTIC AVE	CAMPOSTELLA RD	0.20	13,818		14,402					15,800					5,700		6,000	10,000	2.4%
CHES	PROVIDENCE RD	CAMPOSTELLA RD	VA BEACH CL	2.34	13,366				13,030			14,340		21,417			18,953		19,000	16,000	-0.7%
CHES	PUGHSVILLE RD	SUFFOLK CL	I-664	0.63								3,030		4,624			7,231		9,000	16,000	3.4%
CHES	PUGHSVILLE RD	I-664	TAYLOR RD	0.37			11,362		12,297			15,034		16,816			19,323		22,000	24,000	0.9%
CHES	SIGN PINE RD	EDINBURGH PKWY	BENEFIT RD	1.02			1,825		1,837					2,242			1,775		9,000	12,000	8.3%
CHES	TAYLOR RD	PORTSMOUTH BLVD	ELIZABETH HARBOR RD	0.77	23,138		23,129		19,500			23,195		20,605				19,437	23,000	27,000	1.4%
CHES	TAYLOR RD	ELIZABETH HARBOR RD	BRUCE RD	0.99													23,204		23,000	27,000	0.6%
CHES	TAYLOR RD	BRUCE RD	PUGHSVILLE RD	0.31	23,138		23,129		19,500					19,885			21,692		23,000	27,000	0.9%
CHES	TAYLOR RD	PUGHSVILLE RD	WESTERN BRANCH BLVD	1.70	15,563		14,984		13,541			15,200			15,348		15,000		16,000	19,000	1.0%
CHES	TOWN POINT RD	PORTSMOUTH CL	CHURCHLAND BLVD	0.09			23,583		21,396			17,894			20,791			25,220	25,000	28,000	0.5%
CHES	TYRE NECK RD	BRUCE RD	SILVERWOOD BLVD	1.10	10,602		11,244		10,470			11,015		11,925			11,761		12,000	13,000	0.4%
CHES	TYRE NECK RD	SILVERWOOD BLVD	PORTSMOUTH CL	0.15	10,602		11,244		10,470			11,015			11,904			12,400	13,000	14,000	0.5%
CHES	VOLVO PKWY	BATTLEFIELD BLVD	GREENBRIER PKWY	1.40	14,198		18,424		19,569			24,037		23,835			27,132		35,000	22,000	-0.9%
CHES	VOLVO PKWY	GREENBRIER PKWY	FAIRWAY REACH RD	0.82			16,689		17,488			21,400		25,351			21,032		29,000	30,000	1.5%
CHES	VOLVO PKWY	FAIRWAY REACH RD	KEMPSVILLE RD	0.60			16,689		17,488			21,400		25,351		25,387	24,879		32,000	35,000	1.4%
CHES	VOLVO PKWY	KEMPSVILLE RD	VA BEACH CL	0.53											DNE			DNE	15,000	23,000	-
CHES	WESTERN BRANCH BLVD	CHURCHLAND BLVD	TAYLOR RD	0.32			24,078		22,863			21,000		27,046			19,707		22,000	33,000	2.2%
CHES	WESTERN BRANCH BLVD	TAYLOR RD	PORTSMOUTH CL	0.32	29,453		30,746		27,192			21,000			21,289			23,758	24,000	26,000	0.4%
GLO	BELROI RD	HICKORY FORK RD	ROUTE 17	3.62			2,668		3,428						4,531			4,609	5,000	8,000	2.4%
GLO	GUINEA RD	ROUTE 17	MARYUS RD	3.66			7,384		7,302			9,120			8,050			9,275	10,000	10,000	0.3%
GLO	HICKORY FORK RD	ROUTE 17	BELROI RD	5.33			4,891		5,601			6,577			5,741			5,734	6,000	6,000	0.2%
GLO	RTE 17 (COLEMAN BRIDGE)	YORK CL	RTE 216 (GUINEA RD)	2.96	26,000		28,500		26,787				29,894	29,683	27,398		33,568	34,070	39,000	43,000	1.0%
GLO	RTE 17	RTE 216 (GUINEA RD)	RTE 614 E (FEATHERBED LANE)	4.29			29,250		29,529						32,850			36,168	41,000	43,000	0.8%
GLO	RTE 17	RTE 614 E (FEATHERBED LANE)	RTE 17 BUS S (MAIN ST)	4.76			24,300		25,371						24,099			29,232	32,000	40,000	1.4%
GLO	RTE 17	RTE 17 BUS S (MAIN ST)	RTE 606 (ARK RD)	4.06			13,650		14,845						16,052			17,672	19,000	19,000	0.3%
GLO	MAIN ST (BUS RTE 17)	RTE 17 (SOUTH INTERSECTION)	RTE 3/14E	1.20			17,200		16,242			18,544			18,748			21,754	23,000	24,000	0.4%
GLO	RTE 3/14	RTE 17 BUS	COW CREEK	1.70			14,400		15,611						14,154			17,110	18,000	20,000	0.7%
HAM	ABERDEEN RD	NEWPORT NEWS CL	PEMBROKE AVE	0.30			9,516	9,546	10,463		11,553	12,521	11,999		12,174	10,209	12,451		13,000	11,000	-0.5%
HAM	ABERDEEN RD	PEMBROKE AVE	I-664	0.17	17,951		16,942		19,809							16,097			17,000	15,000	-0.3%
HAM	ABERDEEN RD	I-664	BRIARFIELD RD	0.99	17,951		16,942		19,809			22,915		20,636		19,992		19,090	20,000	21,000	0.4%
HAM	ABERDEEN RD	BRIARFIELD RD	MERCURY BLVD	1.29	13,421		15,558		16,186			16,095	14,737	15,029		16,843		17,792	19,000	16,000	-0.5%
HAM	ABERDEEN RD	MERCURY BLVD	TODDS LA	0.20			8,466		10,378					10,963	11,109	11,076	13,605		14,000	13,000	-0.2%

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Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
HAM	ARMISTEAD AVE	WYTHE CREEK RD	NASA MAIN GATE	0.96	11,400		12,476		13,608			14,264		13,154		14,079		15,181	19,000	17,000	0.5%
HAM	ARMISTEAD AVE	NASA MAIN GATE	CMDR SHEPPARD BLVD	0.32	16,525		18,062		17,429			17,101		18,009		18,438		20,097	24,000	23,000	0.6%
HAM	ARMISTEAD AVE	CMDR SHEPPARD BLVD	HRC PARKWAY	1.52	21,300		22,100	19,732				17,964		24,479	20,511	24,044		29,173	26,000	25,000	-0.7%
HAM	ARMISTEAD AVE	HRC PARKWAY	MERCURY BLVD	1.30	24,800		24,400		24,989			20,649	21,272	23,176	24,557	22,388	32,566	35,453	28,000	31,000	-0.6%
HAM	ARMISTEAD AVE	MERCURY BLVD	PINE CHAPEL RD	0.14	16,700		18,655		18,872			18,028	18,844	19,953		20,396			23,000	26,000	1.0%
HAM	ARMISTEAD AVE	PINE CHAPEL RD	LASALLE AVE	0.95	16,700		18,655		18,872			18,028	18,844	19,953		22,523		22,029	23,000	26,000	0.7%
HAM	ARMISTEAD AVE	LA SALLE AVE	RIP RAP RD	0.44	15,555		15,822		17,272			18,772		17,326		17,755		17,860	18,000	18,000	0.0%
HAM	ARMISTEAD AVE	RIP RAP RD	PEMBROKE AVE	0.37	14,000		13,700		17,272			14,836		14,550		14,862		13,131	15,000	15,000	0.6%
HAM	ARMISTEAD AVE	PEMBROKE AVE	SETTLERS LANDING RD	0.37	13,900		13,700		14,376					14,344		14,509		12,854	14,000	14,000	0.4%
HAM	BIG BETHEL RD	TODDS LANE	HRC PKWY	1.23	22,100		22,300		25,347			22,903		30,113		29,954	28,066	34,089	36,000	39,000	0.6%
HAM	BIG BETHEL RD	HRC PKWY	THOMAS NELSON DR	0.57	14,698		18,500		22,102				24,116			26,169			30,000	37,000	1.4%
HAM	BIG BETHEL RD	THOMAS NELSON DR	SAUNDERS RD	1.25	14,698				18,741			17,893		20,877	21,709	20,727		22,214	19,000	33,000	1.7%
HAM	BIG BETHEL RD	SAUNDERS RD	SEMPLE FARM RD	0.15	14,698				18,741					15,052		14,613		16,398	18,000	20,000	0.9%
HAM	BIG BETHEL RD	SEMPLE FARM RD	YORK CL	0.28			10,100		12,576			10,830				11,357			12,000	15,000	1.1%
HAM	BRIARFIELD RD	NEWPORT NEWS CL	ABERDEEN RD	0.87			9,957	9,506	10,276		10,917	13,911	14,044		13,781	13,380	12,574		13,000	15,000	0.7%
HAM	BRIARFIELD RD	ABERDEEN RD	QUEEN ST	1.06	12,562		12,681		12,982		10,917	15,043	13,912	13,657		13,023		14,466	15,000	15,000	0.2%
HAM	CHESTNUT AVE	NEWPORT NEWS CL	MERCURY BLVD	0.20	8,598		6,699		7,007			6,631	7,084	7,984	6,193	8,962	0	8,835	9,000	7,000	-1.0%
HAM	CMDR SHEPPARD BLVD	BIG BETHEL RD	MAGRUDER BLVD	1.33											DNE			DNE		14,000	-
HAM	CMDR SHEPPARD BLVD	MAGRUDER BLVD	ARMISTEAD AVE	0.73	11,620		13,078		11,438			9,824		10,019		8,433		8,087	10,000	13,000	2.1%
HAM	COLISEUM DR	MERCURY BLVD	MARCELLA DR	0.66			11,850		12,237		15,727	17,812	17,640		17,171	18,648	20,897		21,000	28,000	1.2%
HAM	COLISEUM DR	MARCELLA DR	HRC PARKWAY	0.74							5,688		12,597		15,200	14,632	17,435		20,000	28,000	2.0%
HAM	COUNTY ST	WOODLAND RD	MALLORY ST	0.41			3,380		5,746			6,376	5,587		5,029	4,313	5,139		6,000	6,000	0.6%
HAM	CUNNINGHAM DR	TODDS LA	COLISEUM DR	0.86	19,100		21,300		21,601			21,678		19,774		21,127		23,518	23,000	26,000	0.4%
HAM	CUNNINGHAM DR	COLISEUM DR	MERCURY BLVD	0.74	12,256		16,816		13,613			14,580	14,268	12,070		14,600		14,902	16,000	13,000	-0.6%
HAM	FOX HILL RD	OLD BUCKROE RD	WOODLAND RD	1.10	19,305		19,693		19,527						23,049	22,037		22,692	23,000	15,000	-1.8%
HAM	FOX HILL RD	WOODLAND RD	MERCURY BLVD	1.89	21,541		24,425		26,257			21,704		27,297		28,022		28,701	29,000	28,000	-0.1%
HAM	HARRIS CREEK RD	FOX HILL RD	LITTLE BACK RIVER RD	0.80			2,656	2,410	2,794		2,519		3,494		4,714		3,615		5,000	5,000	1.4%
HAM	HRC PARKWAY	NEWPORT NEWS CL	BIG BETHEL RD	1.26											DNE	3,985	4,215	15,721	30,000	34,000	3.4%
HAM	HRC PARKWAY	BIG BETHEL RD	I-64	0.57	20,696		23,750		27,355			29,126		32,849		37,130		42,994	50,000	61,000	1.5%
HAM	HRC PARKWAY	I-64	MAGRUDER BLVD	0.87	20,696		23,750		27,355			30,816		33,765	36,276	36,842	48,531	52,676	43,000	50,000	-0.2%
HAM	HRC PARKWAY	MAGRUDER BLVD	COLISEUM DR	0.45	14,528		16,900		18,762			22,646		25,935		29,634		38,379	33,000	37,000	-0.2%
HAM	HRC PARKWAY	COLISEUM DR	ARMISTEAD AVE	0.40	14,528		16,900		18,762			22,646				23,556			31,000	29,000	0.8%
HAM	KECOUGHTAN RD	NEWPORT N CL	POWHATAN PKWY	1.19	6,878		7,572		7,062			8,072		8,911		7,543		7,708	8,000	7,000	-0.4%
HAM	KECOUGHTAN RD	POWHATAN PKWY	LA SALLE AVE	1.09	6,878		7,572		7,062				8,509			7,453			8,000	8,000	0.3%
HAM	KECOUGHTAN RD	LA SALLE AVE	VICTORIA BLVD	1.04	8,171		8,864		7,819			11,882	10,201	8,796		8,605		9,058	10,000	9,000	0.0%
HAM	KECOUGHTAN RD	VICTORIA BLVD	SETTLERS LANDING RD	0.28			11,112		11,428						12,594		13,288		15,000	13,000	-0.1%
HAM	KING ST	PEMBROKE AVE	I-64 OVERPASS	0.29	17,978		17,806		17,066			9,823				9,062			10,000	9,000	0.0%
HAM	KING ST	I-64 OVERPASS	RIP RAP RD	0.45	17,978		17,806		17,066			9,823				9,062			10,000	9,000	0.0%
HAM	KING ST	RIP RAP RD	MERCURY BLVD	0.20	17,978		17,806		17,066			9,823		18,522		19,899		20,044	21,000	19,000	-0.2%
HAM	KING ST	MERCURY BLVD	OLD FOX HILL RD	0.12	24,550		22,750		20,680			22,144		23,985		23,980		23,536	24,000	25,000	0.3%

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Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
HAM	KING ST	OLD FOX HILL RD	LITTLE BACK RIVER RD	0.54	24,550		22,750		20,680			22,144		23,985		23,980		23,536	24,000	28,000	0.8%
HAM	KING ST	LITTLE BACK RIVER RD	LAMINGTON RD	0.30	11,450		11,757		8,754			9,341		9,761	8,899	7,888		7,979	8,000	7,000	-0.6%
HAM	KING ST	LAMINGTON RD	OLD BUCKINGHAM RD	0.49	11,450		11,757		8,754			9,341		9,761	8,899	7,888		7,979	8,000	7,000	-0.6%
HAM	KING ST	OLD BUCKINGHAM RD	LANGLEY AFB	0.61	11,450		11,757		8,754			9,341		9,761	8,899	7,888		7,979	8,000	7,000	-0.6%
HAM	LA SALLE AVE	KECOUGHTAN RD	VICTORIA BLVD	0.58	5,405		5,651		5,926			6,339		5,951		6,479		6,155	7,000	16,000	4.2%
HAM	LA SALLE AVE	VICTORIA BLVD	SETTLERS LANDING RD	0.68	14,273		15,222		15,706			19,362		16,054		16,914		15,848	17,000	16,000	0.0%
HAM	LA SALLE AVE	SETTLERS LANDING RD	PEMBROKE AVE	0.15	14,273		15,222		15,706			19,362				15,287			17,000	15,000	-0.1%
HAM	LA SALLE AVE	PEMBROKE AVE	ARMISTEAD AVE	0.51	17,724		20,089		21,658			15,665	18,289	19,848		17,866		23,766	21,000	21,000	-0.5%
HAM	LA SALLE AVE	ARMISTEAD AVE	MERCURY BLVD	0.63	10,949		11,969		13,795				11,799	13,207		15,446		16,976	17,000	12,000	-1.5%
HAM	LA SALLE AVE	MERCURY BLVD	LANGLEY GATE	1.46			12,124		16,116			11,371	11,441	13,789		13,513		15,669	16,000	17,000	0.4%
HAM	LITTLE BACK RIVER RD	KING ST	ROCKWELL RD	1.33	14,252		14,244		13,076			14,792		15,535		14,149		12,707	16,000	21,000	2.2%
HAM	LITTLE BACK RIVER RD	ROCKWELL RD	HARRIS CREEK RD	0.67	4,393		4,114		4,081			7,362		5,548		6,542		5,314	7,000	21,000	6.2%
HAM	MAGRUDER BLVD	YORK CO LINE	SEMPLE FARM RD	0.28	22,630		28,100		26,824			25,822		24,233		26,430		28,865	30,000	29,000	0.0%
HAM	MAGRUDER BLVD	SEMPLE FARM RD	CMDR SHEPPARD BLVD	0.90			29,129	29,677	28,913		28,886		30,423		26,775	27,859	31,107		33,000	38,000	0.8%
HAM	MAGRUDER BLVD	CMDR SHEPPARD BLVD	HRC PARKWAY	1.38	26,450		36,200		35,581			27,969	36,635	38,772		42,498		34,812	44,000	59,000	2.3%
HAM	MAGRUDER BLVD	HRC PARKWAY	I-64	0.67	26,450		36,200		24,608		24,631		27,616		24,496	29,523	9,776		32,000	34,000	5.3%
HAM	MALLORY ST	I-64	COUNTY ST	0.40	10,557		9,510		9,349			13,700		9,736		10,197		10,490	11,000	14,000	1.3%
HAM	MALLORY ST	COUNTY ST	MERCURY BLVD	0.23	10,600		9,500		9,349			13,700		9,736		10,197		10,490	11,000	10,000	-0.2%
HAM	MALLORY ST	MERCURY BLVD	PEMBROKE AVE	1.94	7,260		7,423		7,976			10,043	8,884	7,260		7,558		7,807	8,000	9,000	0.6%
HAM	MELLEN ST	MERCURY BLVD	MALLORY ST	0.70	6,735		6,655		6,747			9,157		6,897		6,068		5,927	7,000	8,000	1.3%
HAM	MERCURY BLVD	NEWPORT NEWS CL	ABERDEEN RD	2.04	31,500		31,400		29,345			33,936		36,723	49,981	51,663	50,284	49,507	52,000	54,000	0.4%
HAM	MERCURY BLVD	ABERDEEN RD	POWER PLANT PKWY	0.43	34,200		31,800		35,907			39,288	49,250	42,679	62,084	56,070			66,000	59,000	0.2%
HAM	MERCURY BLVD	POWER PLANT PKWY	I-64	0.38	46,600		45,200		50,057			52,261		55,096		62,306		51,261	72,000	59,000	0.6%
HAM	MERCURY BLVD	I-64	COLISEUM DR	0.35	43,300		45,300		43,609					53,371		54,239		51,279	57,000	59,000	0.6%
HAM	MERCURY BLVD	COLISEUM DR	CUNNINGHAM DR	0.42	28,400		29,700		30,518					36,955		51,053		40,496	54,000	55,000	1.3%
HAM	MERCURY BLVD	CUNNINGHAM DR	ARMISTEAD AVE	0.24	37,200		32,200		38,122					49,031		52,100		44,783	55,000	54,000	0.8%
HAM	MERCURY BLVD	ARMISTEAD AVE	LA SALLE AVE	0.70	45,400		45,500		48,059				48,724	49,496	56,160	55,297		56,318	58,000	55,000	-0.1%
HAM	MERCURY BLVD	LA SALLE AVE	KING ST	0.82	47,400		47,400		54,764					49,995		55,209		64,403	58,000	56,000	-0.6%
HAM	MERCURY BLVD	KING ST	FOX HILL RD	0.31	47,400		47,400		54,764					49,995		55,209		64,403	54,000	41,000	-1.9%
HAM	MERCURY BLVD	FOX HILL RD	ANDREWS BLVD	0.70	26,100		27,100		26,736			15,928		15,756		31,400		36,444	37,000	30,000	-0.8%
HAM	MERCURY BLVD	ANDREWS BLVD	PEMBROKE AVE	0.55			16,600		16,563							18,099			20,000	21,000	0.6%
HAM	MERCURY BLVD	PEMBROKE AVE	WOODLAND RD	0.44	11,400		9,600		9,105			10,599		10,843		11,567		11,366	12,000	7,000	-2.1%
HAM	MERCURY BLVD	WOODLAND RD	MALLORY ST	0.50	11,400		9,600		9,105			10,599		10,843		11,567		11,366	12,000	13,000	0.6%
HAM	MERCURY BLVD	MALLORY ST	MELLEN ST/INGALLS RD	0.78	7,500		5,600		4,832			5,171		5,598		5,141		5,628	6,000	6,000	0.3%
HAM	OLD BUCKROE RD	PEMBROKE AVE	FOX HILL RD	1.50	6,406		6,833		7,020			7,539	7,523	6,912		6,735		7,137	7,000	8,000	0.5%
HAM	PEMBROKE AVE	NEWPORT NEWS CL	ABERDEEN RD	0.33	9,329		8,906		8,569				10,175			9,250			11,000	14,000	1.7%
HAM	PEMBROKE AVE	ABERDEEN RD	POWHATAN PKWY	1.18	9,329		8,906		8,569			9,335		10,305		11,400		10,838	11,000	11,000	0.1%
HAM	PEMBROKE AVE	POWHATAN PKWY	SETTLERS LANDING RD	1.44	11,813		11,687		12,090			10,638	11,622	13,323		11,044		12,165	14,000	16,000	1.2%
HAM	PEMBROKE AVE	SETTLERS LANDING RD	LA SALLE AVE	0.17	10,477		10,632		11,683			12,091		11,351		10,610		10,999	11,000	14,000	1.1%
HAM	PEMBROKE AVE	LA SALLE AVE	ARMISTEAD AVE	0.71	9,387		8,568		9,453			12,077	10,319	10,942		9,478		7,854	11,000	14,000	2.5%

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					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
HAM	PEMBROKE AVE	ARMISTEAD AVE	KING ST	0.27	9,387		8,568		9,453			12,665	10,560	10,496		10,052			13,000	24,000	3.5%
HAM	PEMBROKE AVE	KING ST	EATON ST	0.14	10,648		10,542		11,736			12,665	10,560	10,496		10,052			12,000	24,000	3.5%
HAM	PEMBROKE AVE	EATON ST	BARRON ST	0.40	10,648		10,542		11,736			12,665	10,560	10,496		10,052			12,000	11,000	0.4%
HAM	PEMBROKE AVE	BARRON ST	MERCURY BLVD	0.60	10,648		10,542		11,736			12,665	10,560	10,496		10,052			12,000	12,000	0.7%
HAM	PEMBROKE AVE	MERCURY BLVD	WOODLAND RD	0.19	13,012		12,501		13,575			12,527		13,290		12,622		7,906	14,000	14,000	2.5%
HAM	PEMBROKE AVE	WOODLAND RD	OLD BUCKROE RD	1.10	13,521		12,648		13,340			17,655		16,174		12,315		11,924	15,000	17,000	1.6%
HAM	PEMBROKE AVE	OLD BUCKROE RD	MALLORY ST	0.60	2,745		3,313		4,361			5,362		3,248		3,031		3,502	4,000	5,000	1.6%
HAM	POWER PLANT PKWY	I-664	BRIARFIELD RD	0.73			19,201	11,524	10,840		13,015		11,546		11,515	11,148	14,419		18,000	13,000	-0.4%
HAM	POWER PLANT PKWY	BRIARFIELD RD	PINE CHAPEL RD	0.46	16,044		16,908		15,731			17,579	18,124	17,052		16,834		24,679	31,000	19,000	-1.1%
HAM	POWER PLANT PKWY	PINE CHAPEL RD	MERCURY BLVD	0.71	10,992		10,957		11,417			12,166		11,683		11,206		11,860	15,000	15,000	1.0%
HAM	POWHATAN PKWY	KECOUGHTAN RD	PEMBROKE AVE	0.76	8,433		8,314		8,243			10,322		8,333		8,816		8,702	9,000	8,000	-0.4%
HAM	POWHATAN PKWY	PEMBROKE AVE	I-664	0.19									18,663	19,594	20,471	19,717	21,985		22,000	22,000	0.0%
HAM	QUEEN ST	BRIARFIELD RD	MICHIGAN DR	1.27	10,478		10,704		11,313			10,943	11,428	11,733		11,669		14,015	14,000	14,000	0.0%
HAM	QUEEN ST	MICHIGAN DR	PEMBROKE AVE	0.09	10,478							10,943	11,428	11,733		11,669		14,015	14,000	13,000	-0.3%
HAM	RIP RAP RD	ARMISTEAD AVE	I-64	0.20	10,315		10,824		10,617			14,027		14,941		12,264		10,084	12,000	11,000	0.4%
HAM	RIP RAP RD	I-64	KING ST	0.46	10,315		10,824		10,617			14,027		14,941		12,264		10,084	15,000	15,000	1.7%
HAM	ROANOKE AVE	NEWPORT NEWS CL	MERCURY BLVD	0.19	3,607		3,898		3,557			3,540	3,627	3,518	3,255	3,221	3,637	4,205	4,000	5,000	0.8%
HAM	SAUNDERS RD	NEWPORT NEWS CL	BIG BETHEL RD	0.72	11,004							12,270	12,218	13,653		13,863		12,009	16,000	18,000	1.8%
HAM	SEMPLE FARM RD	MAGRUDER BLVD	WYTHE CREEK RD	0.18	15,205		17,157		18,115				16,588		17,248	17,834	18,334		21,000	24,000	1.1%
HAM	SETTLERS LANDING RD	PEMBROKE AVE	LA SALLE AVE	0.15										8,310	8,448		11,454		12,000	10,000	-0.6%
HAM	SETTLERS LANDING RD	LA SALLE AVE	KECOUGHTAN RD	0.60			19,913		21,791					20,998		19,687		20,945	21,000	16,000	-1.2%
HAM	SETTLERS LANDING RD	KECOUGHTAN RD	ARMISTEAD AVE	0.08			19,913		21,791					20,998		19,687		20,945	21,000	23,000	0.4%
HAM	SETTLERS LANDING RD	ARMISTEAD AVE	TYLER ST	1.07			20,700		22,032			19,943	20,079	23,422	22,692	25,674		26,709	29,000	26,000	-0.1%
HAM	SETTLERS LANDING RD	TYLER ST	I-64	0.10			9,560		9,701		9,014							26,709	29,000	22,000	-0.8%
HAM	TODDS LA	NEWPORT NEWS CL	BIG BETHEL RD	1.19	25,500		24,000		24,705			23,542	23,381	27,570		24,065		21,475	22,000	28,000	1.2%
HAM	TODDS LA	BIG BETHEL RD	ABERDEEN RD	0.98	12,344		22,300		23,248							22,282			22,000	23,000	0.1%
HAM	TODDS LA	ABERDEEN RD	CUNNINGHAM DR	0.30	12,344		22,300		23,248				21,145			26,892			27,000	26,000	-0.1%
HAM	TODDS LA	CUNNINGHAM DR	MERCURY BLVD	0.18	12,344		12,194		13,689					13,982		13,586		15,057	16,000	16,000	0.3%
HAM	WOODLAND RD	I-64	COUNTY ST	0.22			14,507		17,416			18,045	17,199			19,003			20,000	25,000	1.1%
HAM	WOODLAND RD	COUNTY ST	MERCURY BLVD	0.38			14,507		17,416			18,045	17,199	17,898	22,700	30,447		23,659	25,000	17,000	-1.4%
HAM	WOODLAND RD	MERCURY BLVD	PEMBROKE AVE	0.45			14,507		17,416			18,045				14,567			16,000	15,000	0.1%
HAM	WOODLAND RD	PEMBROKE AVE	FOX HILL RD	1.82	8,874		9,755		10,259			10,291	10,604	13,696		9,619		10,520	11,000	16,000	1.8%
HAM	WYTHE CREEK RD	ARMISTEAD AVE	POQUOSON CL	1.00			17,000		16,617		16,052		16,269		16,413	16,598	16,714		18,000	24,000	1.5%
IW/SMT	BATTERY PARK RD	S CHURCH ST	NIKE PARK RD	1.33			5,673		6,238					8,003			8,654		11,000	7,000	-0.9%
IW	BATTERY PARK RD	NIKE PARK RD	COUNTRY WAY	1.17			1,587		2,865		2,903			3,680			3,811		5,000	4,000	0.2%
IW	BENNS CHURCH BLVD	SUFFOLK CL	RIDDICK RD	2.07			4,611	9,000						9,173	9,840		10,899		15,000	15,000	1.3%
IW	BENNS CHURCH BLVD	RIDDICK RD	RTE 10 & 32 (BREWERS NECK RD)	2.08			4,611	9,000						9,173	9,840		10,899		15,000	15,000	1.3%
IW	BENNS CHURCH BLVD	RTE 10 & 32 (BREWERS NECK RD)	ECL SMITHFIELD (RTE 644)	1.00				20,000						22,033			24,249		27,000	30,000	0.9%
IW/SMT	BENNS CHURCH BLVD	ECL SMITHFIELD (RTE 644)	CHURCH ST S	0.96			20,479		21,077					26,142			26,681		28,000	33,000	0.9%
IW	BREWER'S NECK BLVD	RTE 10 & 32 (BENN'S CHURCH)	RTE 670	1.82				18,136						19,785			21,801		25,000	29,000	1.2%

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Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
IW	BREWER'S NECK BLVD	RTE 670	RTE 17	1.03				18,136						19,785			21,801		25,000	28,000	1.0%
IW	BUS RTE 10	NCL SMITHFIELD	JENKINS LANE	0.87										2,239			1,867		2,000	6,000	5.0%
IW	BUS RTE 10	JENKINS LANE	RT 10 BYPASS	2.05										2,239			1,867		2,000	3,000	2.0%
IW	BUS RTE 58/RTE 258	FRANKLIN CL	JAMESTOWN LN (RTE 691)	0.33										9,429			8,508		9,000	15,000	2.4%
IW	BUS RTE 58/RTE 258	JAMESTOWN LN (RTE 691)	RTE 258	1.19										9,429			8,508		9,000	15,000	2.4%
IW	BUS RTE 58	RTE 258	SUFFOLK CL	5.20										3,041			3,212		3,000	5,000	1.9%
IW	CARROLLTON BLVD	SUFFOLK CL	WEST END CHUCKATUCK BRIDGE	0.60				16,000						12,641			11,991		16,000	23,000	2.8%
IW	CARROLLTON BLVD	WEST END CHUCKATUCK BRIDGE	RTE 258	1.83				16,000						12,641			11,991		16,000	23,000	2.8%
IW	CARROLLTON BLVD/JAMES RIVER BR	RTE 258	NEWPORT NEWS CL	4.54	31,258		28,082		22,542			21,163	22,083	21,963	25,666	26,468	26,210	27,513	31,000	42,000	1.9%
IW/SMT	CHURCH ST S	RTE 10 BYPASS	BATTERY PARK RD	0.85			10,583		11,155					15,550			15,004		16,000	17,000	0.5%
IW/SMT	CHURCH ST S	BATTERY PARK RD	CYPRESS CREEK BRIDGE	1.00			12,891		11,970					12,969			13,571		14,000	14,000	0.1%
IW/SMT	CHURCH ST S	CYPRESS CREEK BRIDGE	MAIN ST	0.58			12,891		11,970					13,751			13,742		14,000	13,000	-0.2%
IW/SMT	CHURCH ST N	MAIN ST	SMITHFIELD CL	1.28			8,222		9,413					10,684			9,958		11,000	11,000	0.4%
IW/SMT	MAIN ST	RTE 10 BYPASS	CHURCH ST	0.64					6,539					5,720			5,666		6,000	10,000	2.4%
IW	NIKE PARK RD	TITUS CREEK DR	BATTERY PARK RD	1.55	4,781											7,439			9,000	10,000	1.2%
IW	RESCUE RD	NEWPORT ST (RTE 1002)	SMITH'S NECK RD	1.30										788			826		1,000	1,000	0.8%
IW	ROUTE 10 (OLD STAGE HWY)	BUS RTE 10	IW/SURRY CL	4.20										2,995		6,825	7,222		9,000	13,000	2.5%
IW/SMT	ROUTE 10 BYPASS	CHURCH ST S	FAIRWAY DR	1.55			12,005		12,633					8,849		14,690	15,222		17,000	17,000	0.5%
IW/SMT	ROUTE 10 BYPASS	FAIRWAY DR	MAIN ST	0.75			12,005		12,633					8,849		14,690	15,222		17,000	17,000	0.5%
IW/SMT	ROUTE 10 BYPASS	MAIN ST	NCL SMITHFIELD	0.78			8,617		8,486					8,809		10,214	10,159		11,000	16,000	1.9%
IW	ROUTE 10 BYPASS	NCL SMITHFIELD	BUS RTE 10	2.96				4,000						6,172			6,665		8,000	16,000	3.7%
IW	ROUTE 258	SUFFOLK CL	UNION CAMP DR (RTE 656)	1.54										4,067			3,440	4,000	4,000	7,000	2.5%
IW	ROUTE 258	UNION CAMP DR (RTE 656)	CARRSVILLE HWY (BUS RTE 58)	1.31														4,000	4,000	7,000	2.5%
IW	ROUTE 258	CARRSVILLE HWY (BUS RTE 58)	BURDETTE RD (W RTE 619)	5.60										4,116			4,138		5,000	7,000	2.2%
IW	ROUTE 258	BURDETTE RD (W RTE 619)	RIVER RUN TRAIL (W RTE 614)	1.25										4,116			4,138		5,000	7,000	2.2%
IW	ROUTE 258	RIVER RUN TRAIL (W RTE 614)	BLACKWATER RD (RTE 603)	5.77										4,423			4,862		5,000	7,000	1.5%
IW	ROUTE 258	BLACKWATER RD (RTE 603)	WCL WINDSOR	0.08										4,743			4,569		5,000	7,000	1.8%
IW/WIND	ROUTE 258	WCL WINDSOR	RTE 460	0.15										4,743			4,569		5,000	8,000	2.4%
IW/WIND	ROUTE 258	RTE 460	ECL WINDSOR	0.25										5,473			4,898		6,000	17,000	5.3%
IW	ROUTE 258	ECL WINDSOR	COURT ST NORTH (RTE 610)	0.59										5,473			4,898		5,000	7,000	1.5%
IW	ROUTE 258	COURT ST NORTH (RTE 610)	IRON MINE SPRINGS RD (RTE 605)	4.27										4,660			4,648		5,000	7,000	1.7%
IW	ROUTE 258	IRON MINE SPRINGS RD (RTE 605)	CENTRAL HILL RD (W RTE 637)	2.28										4,660			4,648		5,000	7,000	1.7%
IW	ROUTE 258	CENTRAL HILL RD (W RTE 637)	SCOTTS FACTORY RD (RTE 620)	5.20										4,278			5,171		6,000	5,000	-0.1%
IW	ROUTE 258	RTE 620 (SCOTTS FACTORY RD)	WCL SMITHFIELD	1.04			8,400							4,373			5,171		6,000	5,000	-0.1%
IW/SMT	ROUTE 258/MAIN ST	WCL SMITHFIELD	RTE 10 BYPASS	0.76			12,051		13,108					13,648		10,396	12,892		13,000	16,000	0.9%
IW	ROUTE 460	SOUTHAMPTON CL	FIRETOWER RD (RTE 644)	0.54										9,356			11,754		18,000	19,000	2.0%
IW	ROUTE 460	FIRETOWER RD (RTE 644)	WCL WINDSOR	5.56										9,356			11,754		18,000	19,000	2.0%
IW/WIND	ROUTE 460	WCL WINDSOR	RTE 258	0.08										9,356			11,754		18,000	20,000	2.2%
IW/WIND	ROUTE 460	RTE 258	COURT ST (RTE 610)	0.46										12,735			13,097		18,000	10,000	-1.1%
IW	ROUTE 460	COURT ST (RTE 610)	ECL WINDSOR	0.75										12,955			14,531		18,000	10,000	-1.5%

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
IW	ROUTE 460	ECL WINDSOR	SUFFOLK CL	2.35										12,955			14,531		18,000	10,000	-1.5%
IW	SMITHFIELD CONNECTOR	NIKE PARK RD	SMITH'S NECK RD	0.75														DNE		8,000	-
IW	SMITH'S NECK RD	CARROLLTON BLVD	REYNOLDS DR	0.72				3,678			6,472					8,834			12,000	15,000	2.1%
IW	SMITH'S NECK RD	REYNOLDS DR	TITUS CREEK DR	1.03			2,218		2,910		5,631			0			6,990		9,000	7,000	0.0%
IW	SMITH'S NECK RD	TITUS CREEK DR	RESCUE RD	2.10			1,815		1,860		2,422			1,395			1,455		2,000	2,000	1.3%
IW	TITUS CREEK DR	SMITH'S NECK RD	NIKE PARK RD	0.92				1,668			4,297							3,000	5,000	10,000	5.4%
IW	TODD AVE/WARWICK ST	COUNTRY WAY	NEWPORT ST (RTE 1002)	0.57										2,503			1,053		3,000	3,000	4.5%
JCC	BARHAMSVILLE RD	I-64	RTE 60	1.71				6,250	6,392				4,914			7,274			8,000	13,000	2.3%
JCC	CENTERVILLE RD	JOHN TYLER HWY	MONTICELLO AVE	0.50					3,122				5,163	4,355	3,354	3,662	3,344	4,844	6,000	6,000	0.9%
JCC	CENTERVILLE RD	MONTICELLO AVE	NEWS RD	1.62					3,122				5,163	4,355	3,354	3,662	3,344	4,844	6,000	5,000	0.1%
JCC	CENTERVILLE RD	NEWS RD	LONGHILL RD	2.85			2,981		3,122				4,068	9,552	4,644	5,429	4,759	5,073	6,000	9,000	2.5%
JCC	CENTERVILLE RD	LONGHILL RD	RICHMOND RD	3.11			5,831		6,005				9,840	12,144	7,069	9,154	8,933	9,279	10,000	12,000	1.1%
JCC	COLONIAL NATL HIST PKWY	JAMESTOWN/RTE 359	NCL WMSBRG/RTE 199	8.70					3,810			3,800				5,881			6,000	3,000	-2.7%
JCC	CROAKER RD	RTE 60	RTE 760 (MAXTON LN)	0.73			6,320		7,394				9,287	8,357	7,986	8,303	8,356	8,434	9,000	10,000	0.7%
JCC	CROAKER RD	RTE 760 (MAXTON LN)	I-64	0.45			6,320		7,394				9,287	8,357	8,261	8,456	8,063	8,722	9,000	15,000	2.4%
JCC	CROAKER RD	I-64	FENTON MILL RD	0.41			2,851		2,932				1,893	1,195	1,079	3,762	3,621	3,564	7,000	14,000	6.1%
JCC	CROAKER RD	FENTON MILL RD	RIVERVIEW RD	0.73			2,851		2,932				1,893	1,195	1,079	3,762	3,621	3,564	6,000	11,000	5.0%
JCC	IRONBOUND RD	MONTICELLO AVE	WILLIAMSBURG CL	0.76			15,430		17,511				12,589	17,809	10,002	9,291	10,664	10,860	12,000	10,000	-0.4%
JCC	IRONBOUND RD/NEWS RD	JOHN TYLER HWY	MONTICELLO AVE	1.36			7,451		9,844				12,326	12,686	12,324	12,959	10,796	11,183	12,000	15,000	1.3%
JCC	IRONBOUND RD/SANDY BAY RD	JAMESTOWN RD	JOHN TYLER HWY	0.98			4,986		5,565				8,432	7,730	7,227	7,553	7,746	8,336	9,000	8,000	-0.2%
JCC	JAMESTOWN RD	JAMES RIVER	COLONIAL PARKWAY (RTE 359)	0.37			2,120		6,623						2,489				8,000	9,000	5.1%
JCC	JAMESTOWN RD	COLONIAL PARKWAY (RTE 359)	SANDY BAY RD (RTE 681)	1.46			2,120		6,623				8,292	8,065	8,174	7,540	6,956	7,242	8,000	9,000	0.9%
JCC	JAMESTOWN RD	SANDY BAY RD (RTE 681)	NECK-O-LAND RD	0.88			5,546		6,623								8,615	8,954	10,000	9,000	0.0%
JCC	JAMESTOWN RD	NECK-O-LAND RD	WILLIAMSBURG CL	1.46									15,605	16,426	15,888	18,080	18,703	15,466	19,000	9,000	-2.3%
JCC	JOHN TYLER HWY	CHARLES CITY CL	MONTICELLO AVE	1.50			3,180		3,838				9,111	8,013	5,947	9,090			10,000	7,000	-1.0%
JCC	JOHN TYLER HWY	MONTICELLO AVE	CENTERVILLE RD (RTE 614N)	2.70			3,180		3,838				9,111	8,013	5,947	9,090	3,927	3,699	4,000	6,000	2.1%
JCC	JOHN TYLER HWY	CENTERVILLE RD (RTE 614 N)	IRONBOUND RD (RTE 615)	2.10			6,460		9,009				13,888	14,534	14,697	14,425	10,689	10,821	11,000	14,000	1.1%
JCC	JOHN TYLER HWY	IRONBOUND RD (RTE 615)	RTE 712 (STANLEY DR)	1.56					12,987			15,209	13,616	14,969	14,594	13,187	11,566	11,808	13,000	17,000	1.6%
JCC	JOHN TYLER HWY	RTE 712 (STANLEY DR)	RTE 199	0.23			10,851		12,987				13,498	13,310	15,086	14,842	13,142	13,364	15,000	17,000	1.1%
JCC	LONGHILL CONNECTOR RD	LONGHILL RD (RTE 612)	IRONBOUND RD	0.85					10,187				11,712	13,648	10,018	5,425	7,700	6,037	10,000	20,000	5.3%
JCC	LONGHILL RD	CENTERVILLE RD (RTE 614)	OLDE TOWNE RD (RTE 658)	2.39			12,306		12,701				10,730	13,468	9,644	15,599	16,344	16,937	19,000	15,000	-0.5%
JCC	LONGHILL RD	OLDE TOWNE RD (RTE 658)	RTE 199	0.66			12,748		14,389				11,773	9,786	15,497	16,188	18,098	24,259	26,000	15,000	-2.1%
JCC	LONGHILL RD	RTE 199	LONGHILL CONNECTOR RD	0.30					14,389				11,712	13,648	10,018	16,843			19,000	24,000	1.4%
JCC	MERRIMAC TRL	NEWPORT NEWS CL	YORK CL (SOUTH OF GROVE INT)	2.44			8,251		9,094			10,500				13,084			16,000	7,000	-2.5%
JCC	MERRIMAC TRL	YORK CL @ 199	PENNIMAN RD (YORK CL)	1.12					16,466							19,332			22,000	19,000	-0.1%
JCC	MONTICELLO AVE	JOHN TYLER HWY	CENTERVILLE RD (RTE 614)	1.08											DNE	DNE	3,346	4,277	6,000	10,000	3.8%
JCC	MONTICELLO AVE	CENTERVILLE RD (RTE 614)	NEWS RD	2.65											DNE	DNE	6,753	8,738	11,000	14,000	2.1%
JCC	MONTICELLO AVE	NEWS RD	RTE 199	0.57											12,774	26,857	32,755	33,982	35,000	29,000	-0.7%
JCC	MONTICELLO AVE	RTE 199	IRONBOUND RD (RTE 615)	0.82											20,353	16,158	18,844	19,927	21,000	25,000	1.0%
JCC	OLD STAGE RD	NEW KENT CL	RTE 601 S (BARNES RD)	1.29					6,120						6,419	7,887			8,000	10,000	1.0%

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					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
JCC	OLD STAGE RD	RTE 601 S (BARNES RD)	I-64	0.84					7,097						6,419	7,887			8,000	16,000	2.9%
JCC	OLDE TOWNE RD	LONGHILL RD	RICHMOND RD	1.40			9,503		10,938				11,790	12,372	8,973	10,102	10,688	10,472	12,000	13,000	0.9%
JCC	POCAHONTAS TRL	ECL WLMBG	YORK CL @ 199	1.38												19,301			22,000	25,000	1.0%
JCC	POCAHONTAS TRL	YORK CL	BASF RD/ROUTE 60 RELOCATION	3.10	12,233		11,739		11,214				12,079	12,133	12,833	12,281	10,619	12,625	14,000	16,000	1.0%
JCC	POCAHONTAS TRL	BASF RD/ROUTE 60 RELOCATION	NEWPORT NEWS CL	0.90	12,233		11,739		11,214				12,686	9,397	10,480	10,721	8,963	9,244	13,000	6,000	-1.9%
JCC	RELOCATED RTE 60	RTE 60	NEWPORT NEWS CL	2.20											DNE			DNE		16,000	-
JCC	RICHMOND RD	RTE 199	OLDE TOWNE RD (RTE 658)	1.92			23,800		23,951				15,802	23,370	19,175	17,886	17,856	17,041	19,000	31,000	2.6%
JCC	RICHMOND RD	OLDE TOWNE RD (RTE 658)	NCL WLMBG	0.48			11,900		24,298				28,445	27,961	24,871	22,883	22,812	22,175	25,000	31,000	1.5%
JCC	RTE 199	JOHN TYLER HWY (RTE 5)	WCL WLMBG	0.23					19,326			20,494			27,780	29,427			31,000	41,000	1.3%
JCC	RTE 199	ECL WLMBG	HENRY ST/COLONIAL PKWY	1.73			19,600		19,326			21,725				29,353			33,000	44,000	1.6%
JCC	RTE 199	HENRY ST/COLONIAL PKWY	RTE 60/RTE 143/YORK CL	2.14			21,400		23,488			23,378			26,950	28,732			31,000	46,000	1.9%
JCC	RTE 60	NEW KENT CL	RTE 30	5.05			5,242		5,156				6,065	5,401	5,032	5,010	5,756	5,816	6,000	7,000	0.8%
JCC	RTE 60	RTE 30	CROAKER RD (RTE 607)	3.17			13,353		14,528				14,276	14,911	14,357	13,703	13,889	18,184	15,000	22,000	0.8%
JCC	RTE 60	CROAKER RD (RTE 607)	CENTERVILLE RD (RTE 614)	2.70			16,932	18,400	16,919				22,773	19,948	17,703	18,818	19,389	18,828	20,000	29,000	1.9%
JCC	RTE 60	CENTERVILLE RD (RTE 614)	RTE 199	0.28			16,932		16,919				16,122	21,109	20,673	22,629	22,818	28,372	25,000	31,000	0.4%
NN	23RD/25TH CONNECTOR	HUNTINGTON AVE	JEFFERSON AVE	0.36					2,239				3,171			2,080			3,000	12,000	7.3%
NN	25TH ST	JEFFERSON AVE	26TH ST	1.37	3,615		3,403		3,531			3,229	3,155	3,329	3,113	3,166	3,627	3,298	4,000	4,000	0.8%
NN	25TH ST	26TH ST	HAMPTON C L	0.46	7,073		6,927		6,592			5,485	5,859	6,000	6,181	6,506	5,962	6,484	8,000	7,000	0.3%
NN	26TH ST	25TH ST	ROANOKE AVE	0.67	2,287		1,768		2,376			965	1,198	1,313	1,198	1,138	1,545	1,667	2,000	1,000	-2.2%
NN	26TH ST	ROANOKE AVE	JEFFERSON AVE	0.74	2,814		2,577		3,497			1,806	2,238	2,285	2,400	2,646	2,891	2,937	3,000	4,000	1.4%
NN	26TH ST	JEFFERSON AVE	WARWICK BLVD	0.34	3,247		4,367		4,070			3,642	3,871	4,058	4,292	4,492	5,394	5,398	6,000	8,000	1.7%
NN	26TH ST	WARWICK BLVD	HUNTINGTON AVE	0.13	3,247		4,367		4,070			3,642	3,871	4,058	4,292	4,492	5,394	5,398	6,000	8,000	1.7%
NN	39TH ST	HUNTINGTON AVE	MADISON AVE	0.63	6,410		5,976		4,650			6,347	5,416	4,740	4,784	4,035	3,921	4,946	5,000	6,000	0.8%
NN	39TH ST	MADISON AVE	HAMPTON C L	1.00	8,409		8,455		8,253			8,435	8,561	8,406	7,196	7,005	8,928	9,031	11,000	9,000	0.0%
NN	ATKINSON BLVD	WARWICK BLVD	JEFFERSON AVE	1.19											DNE			DNE		29,000	-
NN	BLAND BLVD	WARWICK BLVD	I-64	0.54			18,699		19,431			23,106	24,801	28,580	29,255	26,409	37,484	29,379	31,000	57,000	2.9%
NN	BLAND BLVD	I-64	JEFFERSON AVE	0.40			18,699		19,431			23,106	24,801	28,580	29,255	26,409	37,484	29,379	31,000	14,000	-3.2%
NN	BLAND BLVD	JEFFERSON AVE	McMANUS BLVD	0.48	13,736		17,189		17,746			18,532	20,058	20,390	20,268	19,813	18,038	17,576	22,000	25,000	1.5%
NN	BRIARFIELD RD	HAMPTON CL	JEFFERSON AVE	1.17	11,235		10,686		11,077			9,849	10,542	9,492	9,685	10,487	10,204	10,828	11,000	11,000	0.1%
NN	BUXTON AVE	HAMPTON CL	25TH ST	0.52	10,090		10,033		10,943			11,793	11,177	11,358	11,893	11,170	12,777	11,716	13,000	11,000	-0.3%
NN	CENTER AVE	WARWICK BLVD	JEFFERSON AVE	0.35	7,416		7,042		5,504			5,648	4,049	4,055	4,309	4,248	4,415	4,470	6,000	6,000	1.3%
NN	CHESTNUT AVE	39TH ST	44TH ST	0.20	6,494		8,220		7,783			7,663	7,846	8,143	8,144	8,319	9,187	8,531	9,000	10,000	0.7%
NN	CHESTNUT AVE	44TH ST	BRIARFIELD RD	0.90	6,494		8,220		7,783			7,663	7,846	8,143	8,144	8,319	9,187	8,531	9,000	9,000	0.2%
NN	CHESTNUT AVE	BRIARFIELD RD	HAMPTON CL	1.00	8,598		6,699		7,007			6,631	7,084	7,984	6,193	8,962	0	8,835	9,000	7,000	-1.0%
NN	DENBIGH BLVD	LUCAS CREEK RD	WARWICK BLVD	0.51	18,009		21,295		19,052			19,663	20,672	19,972	18,159	18,319	19,633	20,788	22,000	23,000	0.4%
NN	DENBIGH BLVD	WARWICK BLVD	JEFFERSON AVE	1.15	39,486		38,651		33,334			32,369	33,896	35,862	34,514	33,751	35,592	36,879	38,000	33,000	-0.5%
NN	DENBIGH BLVD	JEFFERSON AVE	YORK CL	1.32	24,029		23,624		24,215			26,873	26,871	28,924	27,269	27,523	29,337	27,312	29,000	38,000	1.4%
NN	FORT EUSTIS BLVD	WARWICK BLVD	I-64	0.82	19,342		35,459		32,604			36,145	35,525	37,211	37,062	36,990	38,602	38,945	40,000	29,000	-1.3%
NN	FORT EUSTIS BLVD	I-64	JEFFERSON AVE	0.16	19,342		35,459		20,673			36,145	35,525	37,211	37,062	36,990	38,602	38,945	40,000	33,000	-0.7%
NN	FORT EUSTIS BLVD	JEFFERSON AVE	.54 MILES EAST OF RTE 143	0.54	13,364		12,737		20,673			12,709	14,969	14,509	15,215	16,243	15,654	16,997	19,000	29,000	2.4%

AGR - Annual Growth Rate

2003 Existing - includes the most recent traffic count available from 2001 to 2003.

Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
NN	FORT EUSTIS BLVD	.54 MILES EAST OF RTE 143	YORK C L	0.74	13,364		12,737		12,713			12,709	14,969	14,509	15,215	16,243	15,654	16,997	19,000	21,000	0.9%
NN	HRC PARKWAY	HAMPTON CL	HARPERSVILLE RD	0.63														15,590	30,000	34,000	3.4%
NN	HARPERSVILLE RD	J CLYDE MORRIS BLVD	SAUNDERS RD	0.54	10,573		9,767		12,428			13,536	13,673	13,042	13,493	12,443	13,858	12,878	14,000	15,000	0.7%
NN	HARPERSVILLE RD	SAUNDERS RD	HRC PARKWAY	2.33	12,881		11,975		13,190			13,566	12,565	11,949	11,591	10,991	11,124	14,018	16,000	12,000	-0.7%
NN	HARPERSVILLE RD	HRC PARKWAY	JEFFERSON AVE	0.44	12,881		11,975		13,190			13,566	12,565	11,949	11,591	10,991	11,124	21,391	46,000	38,000	2.5%
NN	HARPERSVILLE RD	JEFFERSON AVE	WARWICK BLVD	0.89	9,746		9,660		10,439			10,992	9,588	10,326	9,696	9,553	9,103	13,198	20,000	24,000	2.6%
NN	HUNTINGTON AVE	71ST ST	39TH ST	1.78	12,733		13,681		12,551			11,241	14,196	11,395	11,593	12,170	13,611	12,671	14,000	14,000	0.4%
NN	HUNTINGTON AVE	39TH ST	23RD ST	0.78	5,796		5,385		4,644			5,616	5,852	5,212	4,543	7,836	7,538	7,409	8,000	10,000	1.3%
NN	J CLYDE MORRIS BLVD	WARWICK BLVD	JEFFERSON AVE	1.12	38,491		38,712		39,276			37,308	37,425	40,611	39,160	38,601	46,153	38,271	43,000	41,000	0.3%
NN	J CLYDE MORRIS BLVD	JEFFERSON AVE	I-64	1.53	40,671		40,435		42,508			38,157	39,541	40,400	40,241	49,091	50,745	47,496	50,000	50,000	0.2%
NN	J CLYDE MORRIS BLVD	I-64	HARPERSVILLE RD	0.60	38,708		32,399	34,106	34,309			34,007	35,552	38,031	40,112	37,563	40,999	41,480	44,000	51,000	0.9%
NN	J CLYDE MORRIS BLVD	HARPERSVILLE RD	YORK CO LINE	0.19	37,081		31,949	30,801	32,000			31,682	32,001	29,010	31,894	32,533	34,334	33,903	36,000	42,000	0.9%
NN	JEFFERSON AVE	JAMES CITY CL	YORKTOWN RD	1.14	11,733		10,776		11,326			12,752	10,685	13,967	14,232	14,440	12,843	13,524	16,000	11,000	-0.9%
NN	JEFFERSON AVE	YORKTOWN RD	FT EUSTIS BLVD	2.50	10,202		8,110		8,137			9,608	9,326	9,715	10,479	10,463	9,392	10,571	13,000	15,000	1.5%
NN	JEFFERSON AVE	FT EUSTIS BLVD	ATKINSON BLVD	1.34	23,403		24,511		23,988			25,999	26,829	27,996	27,741	24,996	26,504	23,013	29,000	35,000	1.8%
NN	JEFFERSON AVE	ATKINSON BLVD	DENBIGH BLVD	1.68	23,403		24,511		23,988			25,999	26,829	27,996	27,741	24,996	26,504	30,667	41,000	48,000	2.0%
NN	JEFFERSON AVE	DENBIGH BLVD	BLAND BLVD	0.87	45,690		42,918		39,075			47,168	49,141	52,401	54,024	59,062	60,225	58,750	61,000	64,000	0.4%
NN	JEFFERSON AVE	BLAND BLVD	I-64	0.92	45,690		55,990		59,925			54,509	58,428	58,643	59,587	76,075	70,107	67,896	72,000	49,000	-1.4%
NN	JEFFERSON AVE	I-64	OYSTER POINT RD	0.95	43,359		42,374		48,967			55,692	50,480	52,038	55,072	54,161	60,118	58,505	64,000	67,000	0.6%
NN	JEFFERSON AVE	OYSTER POINT RD	MUELLER LA	0.83	34,283		39,729		42,549			54,177	51,390	55,357	57,201	59,398	60,573	57,350	64,000	60,000	0.2%
NN	JEFFERSON AVE	MUELLER LA	MIDDLE GROUND BLVD	0.45	34,283		39,729		42,549			54,177	51,390	55,357	57,201	59,398	60,573	57,350	64,000	60,000	0.2%
NN	JEFFERSON AVE	MIDDLE GROUND BLVD	J CLYDE MORRIS BLVD	1.10	34,283		39,729		42,549			54,177	51,390	55,357	57,201	59,398	60,573	55,288	63,000	66,000	0.8%
NN	JEFFERSON AVE	J CLYDE MORRIS BLVD	HARPERSVILLE RD	1.12	43,977		52,150	49,200	45,498			51,169	50,450	53,088	49,186	52,035	53,929	56,897	64,000	58,000	0.1%
NN	JEFFERSON AVE	HARPERSVILLE RD	MAIN ST	1.67	34,769		51,660	47,600	49,728			55,188	55,627	55,685	52,447	54,496	51,508	58,865	64,000	52,000	-0.5%
NN	JEFFERSON AVE	MAIN ST	CENTER AVE	0.72	40,901		40,273		43,511			40,496	40,180	38,884	40,441	49,606	50,029	46,429	48,000	41,000	-0.5%
NN	JEFFERSON AVE	CENTER AVE	MERCURY BLVD	0.61	41,260		39,360		38,769			38,742	38,742	39,593	39,661	37,782	44,669	45,684	47,000	36,000	-1.0%
NN	JEFFERSON AVE	MERCURY BLVD	BRIARFIELD RD	1.06	28,954		33,789		24,131			38,428	36,009	35,068	35,120	33,784	33,425	36,618	37,000	36,000	-0.1%
NN	JEFFERSON AVE	BRIARFIELD RD	41ST ST	1.08	21,782		24,398		24,131			28,480	28,789	28,905	27,953	27,822	29,250	34,018	34,000	31,000	-0.4%
NN	JEFFERSON AVE	41ST ST	35TH ST	0.25	13,089		12,485		13,172			12,878	12,767	13,633	0	14,110	14,764	15,026	17,000	19,000	1.0%
NN	JEFFERSON AVE	35TH ST	25TH ST	0.54	13,089		12,485		13,172			12,878	12,767	13,633	0	14,110	14,764	15,026	17,000	10,000	-1.8%
NN	MAIN ST	WARWICK BLVD	JEFFERSON AVE	0.42	18,339		17,630		16,609			15,877	15,794	14,965	14,822	13,899	15,912	14,823	17,000	22,000	1.7%
NN	MAIN ST	JEFFERSON AVE	HAMPTON C L	0.56	22,667		23,758		22,497			22,285	20,793	20,112	22,403	23,972	22,360	20,524	22,000	14,000	-1.6%
NN	MERCURY BLVD	HAMPTON C L	JEFFERSON AVE	0.25	38,125		33,104		33,440			34,997	38,185	40,708	40,089	42,569	44,859	43,704	47,000	44,000	0.0%
NN	MERCURY BLVD	JEFFERSON AVE	WARWICK BLVD	0.34	40,464		34,295	32,200	30,857			32,367	34,829	36,227	34,668	38,411	0	38,513	40,000	40,000	0.2%
NN	MERCURY BLVD	WARWICK BLVD	RIVER RD	0.23	31,258		28,082		22,542			21,163	22,666	27,318	26,137	24,800	0	25,785	29,000	40,000	1.9%
NN	MERCURY BLVD/JAMES RIVER BR	RIVER RD	ISLE OF WIGHT C L	2.18	31,258		28,082		22,542			21,163	22,083	21,963	25,666	26,468		27,513	31,000	42,000	1.9%
NN	MIDDLE GROUND BLVD	WARWICK BLVD	JEFFERSON AVE	0.95											DNE			DNE		21,000	-
NN	OYSTER POINT RD	WARWICK BLVD	JEFFERSON AVE	1.04	36,974		38,415		47,935			38,726	36,332	44,199	46,511	46,988	48,616	46,330	50,000	38,000	-0.9%
NN	OYSTER POINT RD	JEFFERSON AVE	I-64	1.11	17,648		29,385		37,324			37,233	37,074	43,122	45,748	48,397	49,104	49,507	51,000	62,000	1.0%
NN	RICHNECK RD	DENBIGH BLVD	JEFFERSON AVE	0.97	4,712		4,289		4,752			4,139	4,482	4,343	4,681	4,060	3,934	3,859	5,000	4,000	0.2%

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Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
NN	RICHNECK RD	JEFFERSON AVE	YORK CL	1.53	6,782		6,428		8,150			8,753	9,081	9,433	9,014	9,228	8,970	8,138	10,000	12,000	1.7%
NN	ROANOKE AVE	I-664	43RD ST	0.20	3,687		2,414		3,416			2,963	3,341	2,568	3,206	3,063	3,350	3,409	4,000	4,000	0.7%
NN	ROANOKE AVE	43RD ST	BRIARFIELD RD	1.00	3,687		2,414		3,416			2,963	3,341	2,568	3,206	3,063	3,350	3,409	4,000	4,000	0.7%
NN	ROANOKE AVE	BRIARFIELD RD	HAMPTON CL	0.90	3,607		3,898		3,557			3,540	3,627	3,518	3,255	3,221	3,637	4,205	4,000	5,000	0.8%
NN	SAUNDERS RD	HARPERSVILLE RD	HAMPTON C L	0.84	11,152		9,034		12,425			12,140	12,576	12,382	12,823	12,285	12,901	10,318	14,000	16,000	1.9%
NN	VICTORY BLVD	I-64	YORK CL	0.51			24,500		34,685			35,968	38,324	43,290	44,986	48,718	54,436	52,524	60,000	63,000	0.8%
NN	ROUTE 60 RELOCATED	JAMES CITY CL	FT EUSTIS BLVD	1.19											DNE			DNE		16,000	-
NN	WARWICK BLVD	JAMES CITY CL	YORKTOWN RD	1.69	12,234		11,739		9,896			11,701	11,804	12,119	11,754	12,150	11,492	14,384	18,000	7,000	-3.1%
NN	WARWICK BLVD	YORKTOWN RD	FT EUSTIS BLVD	1.44	15,470		15,701		14,920			17,126	16,646	16,494	18,135	18,840	15,655	16,331	20,000	18,000	0.4%
NN	WARWICK BLVD	FT EUSTIS BLVD	SNIDOW BLVD	1.86	35,835		37,966		32,968			35,134	37,842	38,706	40,685	41,732	41,113	38,434	43,000	44,000	0.6%
NN	WARWICK BLVD	SNIDOW BLVD	DENBIGH BLVD	1.66	40,266		40,469		38,203			45,251	41,765	43,427	44,678	45,751	45,892	47,554	50,000	42,000	-0.5%
NN	WARWICK BLVD	DENBIGH BLVD	BLAND BLVD	0.84	36,886		38,940		37,373			40,968	41,627	37,386	42,626	39,948	38,117	39,322	43,000	55,000	1.5%
NN	WARWICK BLVD	BLAND BLVD	OYSTER POINT RD	1.39	36,632		39,313		41,814			41,743	43,803	45,653	47,626	42,838	45,793	44,912	48,000	51,000	0.6%
NN	WARWICK BLVD	OYSTER POINT RD	MIDDLE GROUND BLVD	1.31	34,007		36,299		32,945			33,313	34,797	34,006	32,165	33,356	41,913	34,219	35,000	38,000	0.5%
NN	WARWICK BLVD	MIDDLE GROUND BLVD	DEEP CREEK RD	0.55	35,932				37,153			37,025	38,771	35,684	41,063	36,533	38,360	38,313	39,000	58,000	1.8%
NN	WARWICK BLVD	DEEP CREEK RD	J C MORRIS BLVD	1.43	53,612		47,470		45,369			46,591	47,881	48,170	46,888	0	48,761	50,025	55,000	54,000	0.3%
NN	WARWICK BLVD	J C MORRIS BLVD	HARPERSVILLE RD	1.07	35,406		38,279		32,855			36,724	38,184	32,672	34,847	33,187	0	34,109	36,000	50,000	1.7%
NN	WARWICK BLVD	HARPERSVILLE RD	MAIN ST	1.49	39,272		38,377		36,496			37,013	36,889	38,855	36,606	36,950	38,135	38,981	41,000	45,000	0.6%
NN	WARWICK BLVD	MAIN ST	CENTER AVE	0.69	34,269		31,574		32,048			28,441	30,789	28,844	27,503	27,182	29,485	29,028	30,000	29,000	0.0%
NN	WARWICK BLVD	CENTER AVE	MERCURY BLVD	0.50	34,844		34,237		31,100			29,564	28,951	30,266	29,865	29,459	26,617	31,694	33,000	35,000	0.4%
NN	WARWICK BLVD	MERCURY BLVD	HUNTINGTON AVE	0.50	33,087		31,407		28,455			29,859	30,171	26,695	27,113	25,579	30,394	30,991	32,000	29,000	-0.3%
NN	WARWICK BLVD	23RD ST	39TH ST	0.75	4,285		3,735		3,962			3,484	3,887	4,336	4,057	4,289	4,313	4,431	5,000	8,000	2.6%
NN	WARWICK BLVD	39TH ST	HUNTINGTON AVE	1.75	16,318		15,244		13,244			13,447	13,942	14,196	13,318	13,421	14,325	16,461	17,000	16,000	-0.1%
NN	YORKTOWN RD	WARWICK BLVD	I-64	0.98	5,956		5,892		3,756			5,393	6,456	6,451	6,716	6,145	6,170	6,298	9,000	17,000	4.4%
NN	YORKTOWN RD	I-64	JEFFERSON AVE	0.15	5,956		5,892		9,809			5,393	6,456	6,451	6,716	6,145	6,170	6,298	9,000	16,000	4.1%
NN	YORKTOWN RD	JEFFERSON AVE	CRAFFORD RD	0.61	9,765		9,337		9,809			13,592	14,008	14,461	11,859	10,966	10,157	11,860	16,000	23,000	2.9%
NN	YORKTOWN RD	CRAFFORD RD	YORK CO LINE	0.44			9,230		8,606				9,094	8,686	10,184	10,008	9,687	9,957	14,000	19,000	2.8%
NOR	21ST ST	HAMPTON BLVD	COLLEY AVE	0.35	15,084		15,218		14,652			15,100			10,702			8,467	11,000	5,000	-2.3%
NOR	21ST ST	COLLEY AVE	LLEWELLYN ST	0.45	15,084		15,218		14,652			15,100			14,121			14,686	15,000	17,000	0.6%
NOR	21ST ST	LLEWELLYN ST	MONTICELLO AVE	0.27	10,104		11,326		10,375			10,800			9,048			10,202	11,000	13,000	1.1%
NOR	26TH ST	HAMPTON BLVD	COLLEY AVE	0.39	6,576		6,393		5,528			7,576			6,979			3,617	7,000	10,000	4.5%
NOR	26TH ST	COLLEY AVE	LLEWELLYN AVE	0.77	6,576		6,393		5,528			7,576			8,594			8,756	9,000	8,000	-0.4%
NOR	26TH ST	LLEWELLYN AVE	MONTICELLO AVE	0.27	11,607		10,048		9,123			7,894			9,478			9,440	10,000	10,000	0.3%
NOR	26TH ST	MONTICELLO AVE	CHURCH ST	0.15	11,607		10,048		9,123			7,894			8,925			9,799	10,000	10,000	0.1%
NOR	26TH ST	CHURCH ST	27TH ST	0.26	11,607		10,048		9,123			7,894			9,450			9,481	10,000	10,000	0.2%
NOR	27TH ST	HAMPTON BLVD	COLLEY AVE	0.39	7,316		7,671		5,356			7,433			7,753			8,340	9,000	8,000	-0.2%
NOR	27TH ST	COLLEY AVE	LLEWELLYN AVE	0.47	7,316		7,671		5,356			7,433			7,753			8,340	9,000	9,000	0.3%
NOR	27TH ST	LLEWELLYN AVE	MONTICELLO AVE	0.26	9,281		8,311					8,173			9,678			10,640	11,000	14,000	1.2%
NOR	27TH ST	MONTICELLO AVE	CHURCH ST	0.10	9,281		8,311					8,173			9,678			10,640	11,000	18,000	2.3%
NOR	27TH ST	CHURCH ST	26TH ST	0.25	9,281		8,311					8,173						10,640	11,000	14,000	1.2%

AGR - Annual Growth Rate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)													Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
NOR	38TH ST	HAMPTON BLVD	COLLEY AVE	0.40	8,635		7,548		8,493						5,875			6,023	7,000	6,000	0.0%
NOR	38TH ST	COLLEY AVE	LLEWELLYN AVE	0.54	8,635		7,548		8,493			8,719			7,799			8,149	9,000	12,000	1.7%
NOR	38TH ST	LLEWELLYN AVE	GRANBY ST	0.16	8,635		7,548		8,493			8,719			7,799			4,569	5,000	5,000	0.4%
NOR	4TH VIEW ST	I-64	OCEAN VIEW AVE	0.24	16,609		15,292		14,435			15,300			8,210			13,806	15,000	24,000	2.4%
NOR	ADMIRAL TAUSSIG BLVD	HAMPTON BLVD	I-564	0.74	38,010		39,356		33,970			35,300			47,419			33,595	35,000	24,000	-1.5%
NOR	AZALEA GARDEN RD	VA BEACH BLVD	PRINCESS ANNE RD	0.79	13,880		14,449		11,503			10,300			11,552			11,624	12,000	12,000	0.1%
NOR	AZALEA GARDEN RD	PRINCESS ANNE RD	SEWELLS POINT RD	0.31	14,934		13,025		14,865			13,900			16,281			16,705	17,000	19,000	0.6%
NOR	AZALEA GARDEN RD	SEWELLS POINT RD	ROBIN HOOD RD	0.64	11,395		10,398		9,921			9,700			9,860			10,329	11,000	11,000	0.3%
NOR	AZALEA GARDEN RD	ROBIN HOOD RD	I-64	0.43	10,995		11,969		11,090			11,100			12,048			10,713	12,000	13,000	0.8%
NOR	AZALEA GARDEN RD	I-64	MILITARY HWY	0.40	10,995		11,969		11,090			11,100			9,816			10,012	11,000	11,000	0.4%
NOR	AZALEA GARDEN RD	MILITARY HWY	NORVIEW AVE	0.60	12,256		12,531		13,228			14,300			12,519			14,536	15,000	26,000	2.6%
NOR	AZALEA GARDEN RD	NORVIEW AVE	LITTLE CREEK RD	1.42	12,156		14,620		15,320			15,300			12,519	14,574		14,536	15,000	21,000	1.6%
NOR	BAINBRIDGE BLVD	SCL NORFOLK	S MAIN ST	0.50	1,429		1,542		1,370			432			1,201			1,551	2,000	2,000	1.1%
NOR	BALLENTINE BLVD	I-264	VA BEACH BLVD	0.70			25,095		23,463			24,500						27,525	28,000	31,000	0.5%
NOR	BALLENTINE BLVD	VA BEACH BLVD	PRINCESS ANNE RD	0.50	14,711		16,371		14,825			13,654			13,871			14,383	15,000	15,000	0.2%
NOR	BALLENTINE BLVD	PRINCESS ANNE RD	CHESAPEAKE BLVD	0.95	13,478		13,570		15,602			17,100			11,126			11,969	13,000	11,000	-0.4%
NOR	BAY AVE	FIRST VIEW ST	I-64 RAMP	0.27	18,479		19,028		15,811			18,022			18,586			17,199	18,000	13,000	-1.2%
NOR	BAY AVE/OCEAN AVE	I-64	GRANBY ST	0.38											2,476				3,000	6,000	3.5%
NOR	BAY VIEW BLVD	GRANBY ST	TIDEWATER DR	0.61	9,378		9,892		8,870			8,600			8,438			9,146	10,000	9,000	-0.1%
NOR	BAY VIEW BLVD	TIDEWATER DR	CHESAPEAKE BLVD	0.51	13,775		14,088		13,795			12,701			9,811			12,939	13,000	10,000	-1.1%
NOR	BAY VIEW BLVD	CHESAPEAKE BLVD	CAPE VIEW AVE	1.11	7,299		8,743		8,117			8,000			7,038			6,722	7,000	7,000	0.2%
NOR	BERKLEY AVE	I-464	STATE ST	0.10			8,215		7,541			8,000			12,790			14,543	16,000	18,000	0.9%
NOR	BERKLEY AVE	STATE ST	MAIN ST	0.10			8,215		7,541			8,000			12,790			13,263	14,000	17,000	1.1%
NOR	BERKLEY AVE	MAIN ST	BERKLEY AVE EXT	0.20			8,215		7,541			8,000			10,995			12,967	14,000	13,000	0.0%
NOR	BERKLEY AVE	BERKLEY AVE EXT	INDIAN RIVER RD	0.54			8,215		7,541			8,000						12,000	13,000	10,000	-0.8%
NOR	BERKLEY AVE EXT	BERKLEY AVE/FAUQUIER ST	WILSON RD	0.77	3,476		3,881		4,063			3,907			3,341			3,274	4,000	4,000	0.9%
NOR	BERKLEY AVE EXT	WILSON RD	CAMPOSTELLA RD	0.48	2,787		3,880		3,679			9,760			10,515			3,074	4,000	12,000	6.1%
NOR	BOUSH ST/WATERSIDE DR	ST PAULS BLVD	CITY HALL AVE	0.57	21,410		37,256		31,353			32,800		30,041	28,198	30,305			34,000	38,000	0.9%
NOR	BOUSH ST	CITY HALL AVE	BUTE STREET	0.35	21,410		20,067		18,044			18,000		30,041	28,198	30,305			34,000	35,000	0.6%
NOR	BOUSH ST	BUTE STREET	BRAMBLETON AVE	0.09	21,410		20,067		18,044			18,000			28,198				32,000	35,000	0.8%
NOR	BOUSH ST	BRAMBLETON AVE	OLNEY RD	0.14	21,410		20,067		18,044			18,000			9,827			9,516	10,000	9,000	-0.2%
NOR	BOUSH ST	OLNEY RD	VA BEACH BLVD	0.07	21,410		20,067		18,044			18,000			9,827			9,516	10,000	9,000	-0.2%
NOR	BRAMBLETON AVE	HAMPTON BLVD	COLLEY AVE	0.50	31,084		25,752		31,970			42,497			32,187			30,840	35,000	46,000	1.8%
NOR	BRAMBLETON AVE	COLLEY AVE	BOUSH ST	0.85	43,058		40,497		44,050			41,816		53,825	43,980	46,797			50,000	54,000	0.6%
NOR	BRAMBLETON AVE	BOUSH ST	MONTICELLO AVE	0.18	25,598		27,598		30,117			30,000			36,674			36,426	38,000	39,000	0.3%
NOR	BRAMBLETON AVE	MONTICELLO AVE	ST PAULS BLVD	0.12	25,598		27,598		30,117			23,551		35,172	36,674	39,368		36,426	40,000	40,000	0.4%
NOR	BRAMBLETON AVE	ST PAULS BLVD	CHURCH ST	0.30	29,761		25,218		28,702			23,551			21,818			23,913	24,000	22,000	-0.4%
NOR	BRAMBLETON AVE	CHURCH ST	TIDEWATER DR	0.29	29,761		25,218		28,702			23,551			26,311			29,252	31,000	25,000	-0.7%
NOR	BRAMBLETON AVE	TIDEWATER DR	PARK AVE	0.42	34,524		28,281		33,290			39,400			31,640			36,846	38,000	32,000	-0.6%
NOR	BRAMBLETON AVE	PARK AVE	I-264	0.20	36,163		32,581		33,348			38,353			36,351			47,524	40,000	38,000	-1.0%

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					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
NOR	CAMPOSTELLA RD	SCL NORFOLK/CASCADE BLVD	INDIAN RIVER RD	0.55	17,838		15,371		16,347			20,950			17,398			24,571	26,000	18,000	-1.3%
NOR	CAMPOSTELLA RD	INDIAN RIVER RD	WILSON RD	0.23	21,325		19,653		22,380			20,950			25,591			30,755	31,000	27,000	-0.6%
NOR	CAMPOSTELLA RD	WILSON RD	SE CAMPOSTELLA BR	0.33	21,325		19,653		22,380			24,000			39,092			43,395	44,000	42,000	-0.1%
NOR	CAMPOSTELLA RD	SE CAMPOSTELLA BR	KIMBALL TERR	0.44	21,325		19,653		22,380			24,000			39,092			43,395	44,000	42,000	-0.1%
NOR	CAMPOSTELLA RD	KIMBALL TERR	I-264	0.10	43,381		37,661		33,938			37,165			39,092	34,831		43,395	44,000	41,000	-0.2%
NOR	CHESAPEAKE BLVD	LAFAYETTE BLVD	CROMWELL DR	0.13	23,938				20,381			20,700						22,116	23,000	34,000	1.9%
NOR	CHESAPEAKE BLVD	CROMWELL DR	ROBIN HOOD RD	0.21	23,938				20,381			20,700						22,116	23,000	38,000	2.4%
NOR	CHESAPEAKE BLVD	ROBIN HOOD RD	HYDE CIR	0.89	20,211		19,762		21,590			23,300						22,116	23,000	28,000	1.0%
NOR	CHESAPEAKE BLVD	HYDE CIR	NORVIEW AVE	0.13	18,874		20,937		20,356			20,600						22,116	23,000	24,000	0.4%
NOR	CHESAPEAKE BLVD	NORVIEW AVE	I-64	0.94	18,874		20,937		20,356			20,600			18,989	22,668		20,125	21,000	21,000	0.2%
NOR	CHESAPEAKE BLVD	I-64	JOHNSTONS RD	0.31	20,672		23,858		22,428			22,700			24,710			26,467	27,000	29,000	0.4%
NOR	CHESAPEAKE BLVD	JOHNSTONS RD	LITTLE CREEK RD	0.49	20,672		23,858		22,428			22,700			24,710			26,467	27,000	29,000	0.4%
NOR	CHESAPEAKE BLVD	LITTLE CREEK RD	SHEPPARD AVE	0.63	21,523		22,274		21,864			23,700			22,477			25,276	26,000	24,000	-0.2%
NOR	CHESAPEAKE BLVD	SHEPPARD AVE	BAY VIEW BLVD	0.41	21,523		22,274		21,864			23,700			22,477			25,276	26,000	24,000	-0.2%
NOR	CHESAPEAKE BLVD	BAY VIEW BLVD	CHESAPEAKE ST	0.61			5,842		6,119			5,345			10,052			14,622	15,000	10,000	-1.6%
NOR	CHESAPEAKE BLVD	CHESAPEAKE ST	OCEAN VIEW AVE	0.47			5,842		6,119			5,345			5,631			6,864	7,000	6,000	-0.6%
NOR	CHURCH ST	BRAMBLETON AVE	VA BEACH BLVD	0.22			11,431		13,831			15,400			11,153			15,852	17,000	15,000	-0.2%
NOR	CHURCH ST	VA BEACH BLVD	PRINCESS ANNE RD	0.12			11,431		13,831			15,400			11,071			17,176	18,000	14,000	-0.9%
NOR	CHURCH ST	PRINCESS ANNE RD	26TH ST	0.83			13,642		14,198			15,759						19,936	21,000	25,000	1.0%
NOR	CHURCH ST	26TH ST	27TH ST	0.06			7,416		7,935			8,800						14,160	14,000	20,000	1.5%
NOR	CHURCH ST	27TH ST	MONTICELLO AVE	0.21			7,416		7,935			8,800						11,673	11,000	14,000	0.8%
NOR	CHURCH ST	MONTICELLO AVE	GRANBY ST	0.13	24,365		24,683		24,726			26,356						29,000	29,000	24,000	-0.8%
NOR	CITY HALL AVE	BOUSH ST	GRANBY ST	0.08	5,430		6,720		7,061			7,100						8,000	8,000	9,000	0.5%
NOR	CITY HALL AVE	GRANBY ST	MONTICELLO AVE	0.06	5,430		6,720		7,061			7,100						8,000	8,000	12,000	1.8%
NOR	CITY HALL AVE	MONTICELLO AVE	ST PAULS BLVD	0.29	5,430		6,720		7,061			7,100						8,000	8,000	17,000	3.3%
NOR	COLLEY AVE	BRAMBLETON AVE	OLNEY RD	0.21	18,403		15,409		16,449			18,400			19,504			18,211	20,000	27,000	1.7%
NOR	COLLEY AVE	OLNEY RD	PRINCESS ANNE RD	0.39	18,403		15,409		16,449			18,400			15,433			14,704	15,000	16,000	0.4%
NOR	COLLEY AVE	PRINCESS ANNE RD	21ST ST	0.40	19,167		16,489		15,653			18,000			16,797			16,524	17,000	20,000	0.8%
NOR	COLLEY AVE	21ST ST	26TH ST	0.24	19,167		16,849		15,653			19,700			15,174			15,483	16,000	19,000	0.9%
NOR	COLLEY AVE	26TH ST	27TH ST	0.05	19,167		16,849		15,653			19,700			15,174			15,483	16,000	20,000	1.1%
NOR	COLLEY AVE	27TH ST	38TH ST	0.34	16,439		15,032		14,304			17,973			13,163			14,476	15,000	18,000	1.0%
NOR	COLLEY AVE	38TH ST	53RD ST	0.74	16,439		15,032		14,304			17,973			13,973			14,476	15,000	17,000	0.7%
NOR	CROMWELL DR	TAIT TERRACE DR	CHESAPEAKE BLVD	0.59	12,220		9,037		12,774			13,300			15,102			15,980	16,000	16,000	0.0%
NOR	CROMWELL DR	CHESAPEAKE BLVD	TIDEWATER DR	0.82	13,103		12,143		13,030			13,000			12,775			13,457	14,000	13,000	-0.2%
NOR	DUKE ST/YORK ST	BOUSH ST	BUTE ST	0.21	17,148		23,024		15,645			14,545									-
NOR	DUKE ST	BUTE ST	BRAMBLETON AVE	0.21	17,148		23,024		15,645			14,545									-
NOR	DUKE ST	OLNEY RD	BRAMBLETON AVE	0.19														9,500	10,000	10,000	0.2%
NOR	GRANBY ST	CHURCH ST	38TH ST	0.36	24,365		24,683		24,726			26,356			20,365	24,446		24,293	25,000	24,000	-0.1%
NOR	GRANBY ST	38TH ST	LLEWELLYN AVE	0.42	24,365		24,683		24,726			26,356			20,365	24,446		24,293	25,000	26,000	0.3%
NOR	GRANBY ST	LLEWELLYN AVE	WILLOW WOOD DRIVE	0.28	29,311		34,855		35,630			37,277			31,772			40,039	41,000	37,000	-0.3%

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					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
NOR	GRANBY ST	WILLOW WOOD DRIVE	THOLE ST	1.15	34,210		32,674		30,551			30,987			32,705			39,655	40,000	39,000	-0.1%
NOR	GRANBY ST	THOLE ST	LITTLE CREEK RD	0.60	27,930		28,986		27,028			30,987			29,931			32,156	33,000	34,000	0.2%
NOR	GRANBY ST	LITTLE CREEK RD	I-564	0.26			30,497		24,215			28,856			25,569			27,824	28,000	28,000	0.0%
NOR	GRANBY ST	I-564	I-64	0.18			30,497		24,215			28,856			19,693			20,998	22,000	28,000	1.3%
NOR	GRANBY ST	I-64	BAY VIEW BLVD	0.99	21,171		21,769		19,105			18,614			19,693			20,998	22,000	23,000	0.4%
NOR	GRANBY ST	BAY VIEW BLVD	BAY AVE	0.56	11,942		13,364		11,787			11,712			12,781			15,767	17,000	15,000	-0.2%
NOR	GRANBY ST	BAY AVE	TIDEWATER DR	0.38	11,942		13,364		11,787			11,712			12,781			15,767	17,000	18,000	0.6%
NOR	GRANBY ST	TIDEWATER DR	OCEAN VIEW AVE	0.71			11,209		11,133			10,151			10,058			9,359	11,000	9,000	-0.2%
NOR	HAMPTON BLVD	BRAMBLETON AVE	PRINCESS ANNE RD	0.40	36,584		36,256		29,495			40,035			35,810	35,008		38,698	40,000	47,000	0.8%
NOR	HAMPTON BLVD	PRINCESS ANNE RD	21ST ST	0.48	36,584		36,256		29,495			40,035			35,810	35,008		38,698	40,000	43,000	0.5%
NOR	HAMPTON BLVD	21ST ST	26TH ST	0.21	48,574		39,883		40,782			44,345			41,585			41,819	43,000	45,000	0.3%
NOR	HAMPTON BLVD	26TH ST	27TH ST	0.05	41,900		36,683					40,061			37,077			41,048	43,000	39,000	-0.2%
NOR	HAMPTON BLVD	27TH ST	38TH ST	0.18	41,900		36,683					40,061			37,077			41,048	43,000	47,000	0.6%
NOR	HAMPTON BLVD	38TH ST	JAMESTOWN CRESCENT	1.32	41,900		36,683					40,061	39,818	41,436	36,775	43,401	43,872	40,780	42,000	42,000	0.1%
NOR	HAMPTON BLVD	JAMESTOWN CRESCENT	LITTLE CREEK RD	1.28	40,124		40,146		36,488			39,882	39,818	41,436	46,517	43,401	43,872	40,780	42,000	42,000	0.1%
NOR	HAMPTON BLVD	LITTLE CREEK RD	INT TERM BLVD	0.18	39,018		42,090		37,189			48,914			39,436			37,387	39,000	44,000	0.7%
NOR	HAMPTON BLVD	INT TERM BLVD	INTERMODAL CONNECTOR	1.00	44,935		45,371		34,760			32,608			36,603	44,408		25,809	36,000	38,000	1.7%
NOR	HAMPTON BLVD	INTERMODAL CONNECTOR	ADM TAUSSIG BLVD	0.92	44,935		45,371		34,760			32,608			36,603	44,408		25,809	36,000	44,000	2.3%
NOR	INDIAN RIVER RD	MARSH ST	WILSON RD	0.36			8,215		7,541			8,300						13,895	14,000	13,000	-0.3%
NOR	INDIAN RIVER RD	WILSON RD	CAMPOSTELLA RD	0.16			8,215		7,541			8,300						13,895	14,000	16,000	0.6%
NOR	INDIAN RIVER RD	CAMPOSTELLA RD	CHESAPEAKE CL	0.71	16,741		15,995		15,478			16,100			21,215			24,852	26,000	25,000	0.0%
NOR	INGLESIDE RD	VA BEACH BLVD	PRINCESS ANNE RD	0.66	11,845				11,917			12,000			15,237			15,623	16,000	18,000	0.6%
NOR	INGLESIDE RD	PRINCESS ANNE RD	TAIT TERRACE DR	0.46					12,433			14,564			15,183			16,219	17,000	17,000	0.2%
NOR	INTERNATIONAL TERMINAL BLVD	HAMPTON BLVD	I-564	1.74	25,178		32,041		26,425				27,809	28,352	28,647	30,026	30,425	29,711	31,000	25,000	-0.7%
NOR	JAMESTOWN CRESCENT	53RD ST	HAMPTON BLVD	0.73	7,339		7,442		7,488			7,600						6,834	8,000	13,000	2.8%
NOR	JOHNSTONS RD	SEWELLS POINT RD	CHESAPEAKE BLVD	0.21	10,953		11,805		11,129			11,300						9,000	11,000	14,000	1.9%
NOR	JOHNSTONS RD	CHESAPEAKE BLVD	MILITARY HWY	0.36	10,953		11,805		11,129			11,300			11,891			13,730	14,000	12,000	-0.6%
NOR	JOHNSTONS RD/HALPRIN LN	MILITARY HWY	LITTLE CREEK RD	0.94	6,737		7,068		6,492			7,391			7,304			8,155	9,000	9,000	0.4%
NOR	KEMPSVILLE RD	NEWTOWN RD	VA BEACH BLVD	1.00	23,191		23,224		23,675			21,705			23,289			23,257	24,000	30,000	1.1%
NOR	KEMPSVILLE RD	VA BEACH BLVD	NORTHAMPTON BLVD	1.58	13,825		14,864		15,565			17,400		13,521	13,382			12,559	14,000	16,000	1.1%
NOR	LAFAYETTE BLVD	27TH ST	TIDEWATER DR	0.89	20,901		15,714		14,391			14,324			14,777			16,237	17,000	19,000	0.7%
NOR	LAFAYETTE BLVD	TIDEWATER DR	CHESAPEAKE BLVD	0.56	20,351		19,610		19,791			19,338			19,842			22,169	23,000	23,000	0.2%
NOR	LIBERTY ST	STATE ST	SOUTH MAIN ST	0.11	2,814		4,300		3,147			2,264	2,649					3,704	4,000	7,000	2.8%
NOR	LIBERTY ST	SOUTH MAIN ST	NCL CHESAPEAKE	0.63	4,531		5,625		5,514			4,470			4,371			4,978	5,000	5,000	0.0%
NOR	LITTLE CREEK RD	HAMPTON BLVD	GRANBY ST	1.98	27,670		27,197		24,205			24,664			25,854			23,930	25,000	25,000	0.2%
NOR	LITTLE CREEK RD	GRANBY ST	I-64	0.35	29,120		30,675		29,819			32,428			34,981			38,860	39,000	37,000	-0.2%
NOR	LITTLE CREEK RD	I-64	TIDEWATER DR	0.77	35,346		36,101		31,759			30,409			29,948				30,000	31,000	0.1%
NOR	LITTLE CREEK RD	TIDEWATER DR	SEWELLS POINT RD	0.18	39,026		37,508		32,577			30,066			29,631			29,324	31,000	37,000	1.0%
NOR	LITTLE CREEK RD	SEWELLS POINT RD	CHESAPEAKE BLVD	0.53	39,026		37,508		32,577			30,066			29,631			29,324	31,000	34,000	0.6%
NOR	LITTLE CREEK RD	CHESAPEAKE BLVD	MILITARY HWY	0.15	37,894		34,477		33,747			33,268			39,120			46,106	47,000	39,000	-0.7%

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
NOR	LITTLE CREEK RD	MILITARY HWY	AZALEA GARDEN RD	1.54	37,894		34,477		33,747			33,268			31,400			31,264	32,000	34,000	0.4%
NOR	LITTLE CREEK RD	AZALEA GARDEN RD	SHORE DR	1.10	31,323		34,582		31,301			27,942			27,635			25,524	26,000	33,000	1.1%
NOR	LLEWELLYN AVE	VA BEACH BLVD	PRINCESS ANNE RD	0.30	14,004		12,431		11,252			11,700			10,343			10,637	11,000	14,000	1.2%
NOR	LLEWELLYN AVE	PRINCESS ANNE RD	21ST ST	0.50	14,004		12,431		11,252			11,700			10,720			10,763	11,000	15,000	1.5%
NOR	LLEWELLYN AVE	21ST ST	26TH ST	0.26	9,521		8,043		8,397			8,700			8,880			9,198	9,000	10,000	0.4%
NOR	LLEWELLYN AVE	26TH ST	27TH ST	0.05	9,521		8,043		8,397			8,700			8,880			9,198	9,000	11,000	0.8%
NOR	LLEWELLYN AVE	27TH ST	35TH ST	0.41	9,127		8,708		7,132			7,428			8,443			8,203	9,000	12,000	1.7%
NOR	LLEWELLYN AVE	35TH ST	38TH ST	0.15	9,127		8,708		7,132			7,428			8,443			8,203	9,000	12,000	1.7%
NOR	LLEWELLYN AVE	38TH ST	DELAWARE AVE	0.20	10,917		11,120		8,632			9,000			14,112			13,292	14,000	16,000	0.8%
NOR	LLEWELLYN AVE	DELAWARE AVE	GRANBY ST	0.27	10,917		11,120		8,632			9,000			8,227			7,454	8,000	8,000	0.3%
NOR	MIDTOWN TUNNEL	PORTSMOUTH CL	BRAMBLETON AVE	0.59			38,000		34,606			38,221	35,852	35,551	36,431	37,217	37,527	35,309	38,000	64,000	2.6%
NOR	MILITARY HWY	VA BEACH CL	I-264	0.75	44,840		49,787		58,250			37,924		41,328	39,989	41,357	46,861	51,558	54,000	62,000	0.8%
NOR	MILITARY HWY	I-264	VA BEACH BLVD	0.83	39,148		43,477		43,356			36,489			40,418			52,785	55,000	53,000	0.0%
NOR	MILITARY HWY	VA BEACH BLVD	LOWERY RD	0.54			42,148		35,473			29,900		32,951	43,232			54,028	58,000	80,000	1.7%
NOR	MILITARY HWY	LOWERY RD	PRIN ANNE RD/NORTHAMPTON BLVD	0.81	44,302		49,185		46,231			38,848		47,792	43,232	48,860		54,028	58,000	86,000	2.0%
NOR	MILITARY HWY	PRIN ANNE RD/NORTHAMPTON BLVD	I-64	0.52	49,976		52,805		50,081			52,900		51,000	47,882	44,394		51,231	55,000	88,000	2.4%
NOR	MILITARY HWY	I-64	AZALEA GARDEN RD	0.65	27,396		31,876		30,473			29,399			32,923			31,651	33,000	37,000	0.7%
NOR	MILITARY HWY	AZALEA GARDEN RD	NORVIEW AVE	0.39	30,636		30,213		31,169			29,399			28,624			30,362	31,000	29,000	-0.2%
NOR	MILITARY HWY	NORVIEW AVE	JOHNSTONS RD	1.16	20,896		25,316		24,415			24,577			22,381			31,077	33,000	27,000	-0.6%
NOR	MILITARY HWY	JOHNSTONS RD	LITTLE CREEK RD	0.48	20,896		25,316		24,415			24,577			22,381			31,077	33,000	16,000	-2.8%
NOR	MONTICELLO AVE	CITY HALL AVE	BRAMBLETON AVE	0.47	6,811		6,883		5,906			5,300			5,045	6,255		6,592	7,000	8,000	0.8%
NOR	MONTICELLO AVE	BRAMBLETON AVE	ST PAULS BLVD	0.19	7,165		7,351		6,256			5,700			6,603			6,523	7,000	9,000	1.4%
NOR	MONTICELLO AVE	ST PAULS BLVD	VA BEACH BLVD	0.10	7,165		7,351		6,256			5,700			28,576			28,887	29,000	34,000	0.7%
NOR	MONTICELLO AVE	VA BEACH BLVD	PRINCESS ANNE RD	0.18	25,039		24,676		25,983			25,116			24,031			24,948	26,000	30,000	0.8%
NOR	MONTICELLO AVE	PRINCESS ANNE RD	21ST ST	0.48	25,039		24,676		25,983			25,116			24,031			24,948	26,000	27,000	0.3%
NOR	MONTICELLO AVE	21ST ST	26TH ST	0.27	17,866		19,465		20,731			20,776			19,247			18,048	19,000	24,000	1.2%
NOR	MONTICELLO AVE	26TH ST	27TH ST	0.05	17,866		19,465		20,731			20,776			19,247			18,048	19,000	22,000	0.9%
NOR	MONTICELLO AVE	27TH ST	CHURCH ST	0.18	17,866		19,465		20,731			20,776			19,247			18,048	19,000	11,000	-2.1%
NOR	NEWTOWN RD	KEMPSVILLE RD	I-264	0.38	30,789		33,890		34,953						29,260			32,264	34,000	35,000	0.4%
NOR	NEWTOWN RD	I-264	VA BEACH BLVD	0.66	37,934		40,404		41,041			44,100			41,977			40,196	42,000	47,000	0.7%
NOR	NEWTOWN RD	VA BEACH BLVD	VA BEACH CL	0.15	37,937		40,119		40,538			40,000			37,975		37,383	38,699	40,000	44,000	0.6%
NOR	NORTHAMPTON BLVD	MILITARY HWY	KEMPSVILLE RD	0.24	26,103		32,190		33,202			36,900			38,201			39,750	43,000	44,000	0.4%
NOR	NORTHAMPTON BLVD	KEMPSVILLE RD	I-64	0.49	26,103		32,190		33,202			36,900			38,201			39,750	43,000	46,000	0.6%
NOR	NORTHAMPTON BLVD	I-64	WESLEYAN DR/VA BEACH CL	0.34			73,399		80,726			83,400			86,075			92,726	100,000	112,000	0.8%
NOR	NORVIEW AVE	TIDEWATER DR	CHESAPEAKE BLVD	1.14	8,942		9,107		6,364			7,335			6,587			5,793	7,000	8,000	1.4%
NOR	NORVIEW AVE	CHESAPEAKE BLVD	I-64	0.41	17,609		17,529		20,621			21,998			23,012			23,289	24,000	25,000	0.3%
NOR	NORVIEW AVE	I-64	MILITARY HWY	0.47	21,764		23,519		25,522			30,334			28,821			30,018	32,000	29,000	-0.1%
NOR	NORVIEW AVE	MILITARY HWY	AZALEA GARDEN RD	0.50	14,228		14,044		16,989				13,902		14,486			16,551	17,000	16,000	-0.1%
NOR	NORVIEW AVE	AZALEA GARDEN RD	NORFOLK INT AIRPORT	0.20	12,373		14,881		15,241			15,800			14,619			12,667	15,000	14,000	0.4%
NOR	OCEAN VIEW AVE	4TH VIEW ST	TIDEWATER DR	0.09	16,151		15,021		15,233			11,635			12,500	15,043		15,964	17,000	30,000	2.8%

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					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
NOR	OCEAN VIEW AVE	TIDEWATER DR	GRANBY ST	0.75	16,151		15,021		15,233			11,635			12,500	15,043		15,964	17,000	14,000	-0.6%
NOR	OCEAN VIEW AVE	GRANBY ST	CHESAPEAKE BLVD	0.44	16,151		15,021		15,233			11,635			12,500	15,043		15,964	17,000	28,000	2.5%
NOR	OCEAN VIEW AVE	CHESAPEAKE BLVD	21ST BAY ST	3.15	28,473		25,835		24,124			17,878			15,488			18,765	20,000	19,000	0.1%
NOR	OLNEY RD	COLLEY AVE	DUKE ST/VA BEACH BLVD	0.56	12,510		12,321		11,834			13,724			10,928			10,851	12,000	12,000	0.4%
NOR	PARK AVE	BRAMBLETON AVE	VA BEACH BLVD	0.45	18,415		12,734		13,634			19,351			17,275			17,343	19,000	18,000	0.2%
NOR	PARK AVE	VA BEACH BLVD	PRINCESS ANNE RD	0.14	20,181		14,058		16,969						14,453			14,120	17,000	19,000	1.3%
NOR	PRINCESS ANNE RD	HAMPTON BLVD	COLLEY AVE	0.08	8,621		9,125		8,851			9,000			5,391			5,582	6,000	5,000	-0.5%
NOR	PRINCESS ANNE RD	COLLEY AVE	LLEWELLYN AVE	0.57	8,621		9,125		8,851			9,000			7,799			8,129	9,000	10,000	0.9%
NOR	PRINCESS ANNE RD	LLEWELLYN AVE	MONTICELLO AVE	0.18	9,621		9,277		9,592			9,600			8,844			9,109	10,000	10,000	0.4%
NOR	PRINCESS ANNE RD	MONTICELLO AVE	CHURCH ST	0.51	9,652		9,395		11,123			10,314			9,971			9,292	10,000	8,000	-0.6%
NOR	PRINCESS ANNE RD	CHURCH ST	TIDEWATER DR	0.28	9,652		9,395		11,123			10,314			14,081			14,066	16,000	15,000	0.3%
NOR	PRINCESS ANNE RD	TIDEWATER DR	MAY AVE	0.14			18,809		19,766			21,700						23,000	24,000	26,000	0.5%
NOR	PRINCESS ANNE RD	MAY AVE	PARK AVE	0.36			18,809		19,766			21,700						23,000	24,000	26,000	0.5%
NOR	PRINCESS ANNE RD	PARK AVE	BALLENTINE BLVD	0.97	19,131		21,294		20,230			19,800			22,035			21,485	22,000	24,000	0.5%
NOR	PRINCESS ANNE RD	BALLENTINE BLVD	INGLESIDE RD	0.37	19,630		21,605		19,459				23,488	23,826	25,473	23,118	23,155	23,075	25,000	30,000	1.1%
NOR	PRINCESS ANNE RD	INGLESIDE RD	AZALEA GARDEN RD	0.59	19,630		24,579		19,459				23,488	23,826	25,473	23,118	23,155	23,075	25,000	31,000	1.3%
NOR	PRINCESS ANNE RD	AZALEA GARDEN RD	SEWELLS POINT RD	0.32	23,430		29,668		24,781			25,900		30,034	26,948			25,125	26,000	26,000	0.1%
NOR	PRINCESS ANNE RD	SEWELLS POINT RD	MILITARY HWY	1.18	23,430		29,668		24,781			25,900		30,034	26,948			25,125	26,000	31,000	0.9%
NOR	ROBIN HOOD RD	CHESAPEAKE BLVD	SEWELLS POINT RD	0.98	8,990		8,731		7,945			7,600			7,478			7,344	8,000	9,000	0.9%
NOR	ROBIN HOOD RD	SEWELLS POINT RD	AZALEA GARDEN RD	0.36	8,990		8,731		7,945			7,600			7,280			6,013	7,000	10,000	2.2%
NOR	ROBIN HOOD RD	AZALEA GARDEN RD	ELLSMERE AVE	0.41	12,057		11,643		13,153			10,972			12,295			9,911	11,000	16,000	2.1%
NOR	ROBIN HOOD RD	ELLSMERE AVE	MILITARY HWY	0.33	12,057		11,643		13,153			10,972			14,792			14,020	15,000	16,000	0.6%
NOR	SEWELLS POINT RD	PRINCESS ANNE RD	AZALEA GARDEN RD	0.26								15,801			13,693			13,773	14,000	5,000	-4.3%
NOR	SEWELLS POINT RD	AZALEA GARDEN RD	ROBIN HOOD RD	0.50	12,744		12,713		10,279			9,300			13,693			13,773	14,000	22,000	2.1%
NOR	SEWELLS POINT RD	ROBIN HOOD RD	CHESAPEAKE BLVD	0.86	16,469		16,412		14,342			15,801			13,693			13,773	14,000	15,000	0.4%
NOR	SEWELLS POINT RD	CHESAPEAKE BLVD	PARTRIDGE ST	0.12	10,442		10,864		10,342			10,300			9,167			9,978	11,000	13,000	1.2%
NOR	SEWELLS POINT RD	PARTRIDGE ST	PHILPOTTS RD	0.28	10,442		10,864		10,342			10,300			9,167			9,978	11,000	13,000	1.2%
NOR	SEWELLS POINT RD	PHILPOTTS RD	I-64	0.31	10,442		10,864		10,342			10,300			9,167			9,978	11,000	23,000	3.7%
NOR	SEWELLS POINT RD	I-64	LITTLE CREEK RD	1.02	10,568		9,930		10,088			9,700			9,167			9,978	11,000	20,000	3.1%
NOR	SHORE DRIVE	21ST BAY ST	LITTLE CREEK RD	0.88	32,452		37,157		31,895			25,131			23,028			24,064	26,000	29,000	0.8%
NOR	SHORE DRIVE	LITTLE CREEK RD	VA BEACH CL	0.98	36,216		43,423		37,262			38,100	34,169	33,770	28,134	32,575	32,570	34,891	37,000	35,000	0.0%
NOR	SOUTH MAIN ST	I-464	BAINBRIDGE BLVD	0.07													1,300		2,000	5,000	5.8%
NOR	SOUTH MAIN ST	BAINBRIDGE BLVD	LIBERTY ST	0.21	6,465		6,271		4,872			3,900					1,300		2,000	5,000	5.8%
NOR	SOUTH MAIN ST	LIBERTY ST	BERKLEY AVE	0.06	6,465		6,271		4,872			3,900					2,300		3,000	9,000	5.8%
NOR	ST PAULS BLVD	WATERSIDE DR	CITY HALL AVE	0.23	23,969		13,949		15,005			18,374			18,499			20,820	22,000	20,000	-0.2%
NOR	ST PAULS BLVD	CITY HALL AVE	I-264 RAMP/MACARTHUR MALL	0.11	35,384		34,878		35,033			41,547			40,804			41,857	44,000	14,000	-4.7%
NOR	ST PAULS BLVD	I-264 RAMP/MACARTHUR MALL	BRAMBLETON AVE	0.39	35,384		34,878		35,033			41,547			40,804			41,857	44,000	50,000	0.8%
NOR	ST PAULS BLVD	BRAMBLETON AVE	MONTICELLO AVE	0.25	20,090		23,919		23,851			23,550						23,000	25,000	26,000	0.5%
NOR	STATE ST	LIBERTY ST	BERKLEY AVE	0.07	2,814		4,300		3,147			2,264	2,649					3,704	4,000	7,000	2.8%
NOR	THOLE ST	GRANBY ST	TIDEWATER DR	1.10	12,835		11,429		9,717			10,037			11,436			11,824	12,000	11,000	-0.3%

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					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
NOR	TIDEWATER DR	CITY HALL AVE	BRAMBLETON AVE	0.35	21,204		21,973		24,572			23,500			23,550	24,924		26,840	28,000	27,000	0.0%
NOR	TIDEWATER DR	BRAMBLETON AVE	VA BEACH BLVD	0.29	30,153		31,748		31,884			30,489			31,452			33,916	35,000	37,000	0.4%
NOR	TIDEWATER DR	VA BEACH BLVD	PRINCESS ANNE RD	0.14	29,915		31,026		33,420			33,500			30,816			32,714	34,000	36,000	0.4%
NOR	TIDEWATER DR	PRINCESS ANNE RD	LAFAYETTE BLVD	1.59	29,915		31,026		33,420			33,500			30,816			32,714	34,000	32,000	-0.1%
NOR	TIDEWATER DR	LAFAYETTE BLVD	CROMWELL DR	0.62	27,275		29,497		28,874			30,287			29,167			26,724	29,000	34,000	1.1%
NOR	TIDEWATER DR	CROMWELL DR	NORVIEW AVE	0.43	34,435		34,747		37,404			37,825	37,465	36,544	42,930	42,185	0	35,639	38,000	45,000	1.0%
NOR	TIDEWATER DR	NORVIEW AVE	THOLE ST	0.91	38,796		37,964		37,862			36,697			33,642			34,507	36,000	35,000	0.1%
NOR	TIDEWATER DR	THOLE ST	I-64	0.15	38,796		37,964		37,862			36,697			33,642			34,507	36,000	36,000	0.2%
NOR	TIDEWATER DR	I-64	LITTLE CREEK RD	0.68	29,527		33,698		30,292			29,626			24,924			24,746	25,000	26,000	0.2%
NOR	TIDEWATER DR	LITTLE CREEK RD	BAY VIEW BLVD	1.18	23,659		22,921		20,909			17,679			15,898			15,461	16,000	19,000	0.9%
NOR	TIDEWATER DR	BAY VIEW BLVD	GRANBY ST	1.01	15,644		19,388		16,443			15,323			12,903			11,404	13,000	15,000	1.2%
NOR	TIDEWATER DR	GRANBY ST	OCEAN VIEW AVE	0.89	8,644		7,347		7,123			6,763			5,982			6,723	7,000	10,000	1.7%
NOR	VA BEACH BLVD	OLNEY RD	GRANBY ST	0.23	7,804		6,553		6,512			6,500			5,670			5,285	6,000	11,000	3.2%
NOR	VA BEACH BLVD	GRANBY ST	MONTICELLO AVE	0.07	7,804		6,553		6,512			6,500			5,670			5,795	6,000	21,000	5.8%
NOR	VA BEACH BLVD	MONTICELLO AVE	CHURCH ST	0.45	17,372		12,751		12,517			9,344			12,427			14,724	16,000	16,000	0.4%
NOR	VA BEACH BLVD	CHURCH ST	TIDEWATER DR	0.30	17,372		12,751		12,517			9,344			12,427			14,724	16,000	23,000	2.0%
NOR	VA BEACH BLVD	TIDEWATER DR	PARK AVE	0.53	27,829		17,794		16,768			9,833			19,672			15,621	19,000	22,000	1.5%
NOR	VA BEACH BLVD	PARK AVE	BALLENTINE BLVD	0.99	19,710		17,024		15,207			20,194			17,818			16,465	19,000	20,000	0.8%
NOR	VA BEACH BLVD	BALLENTINE BLVD	INGLESIDE RD	0.48	27,583		27,872					32,624			32,080			30,684	33,000	37,000	0.8%
NOR	VA BEACH BLVD	INGLESIDE RD	AZALEA GARDEN RD	0.43	27,583		27,872					32,624			32,080			30,684	33,000	38,000	0.9%
NOR	VA BEACH BLVD	AZALEA GARDEN RD	JETT ST	0.38	27,583		27,872					32,624			32,086			30,894	34,000	42,000	1.3%
NOR	VA BEACH BLVD	JETT ST	MILITARY HWY	0.88	33,984		38,115		32,271			35,860		32,452	32,086			30,894	34,000	40,000	1.1%
NOR	VA BEACH BLVD	MILITARY HWY	GLENROCK RD	0.36	31,452		33,360		34,769			35,558	48,200	36,286	31,815			29,904	33,000	48,000	2.1%
NOR	VA BEACH BLVD	GLENROCK RD	KEMPSVILLE RD	0.51	31,452		33,360		34,769			35,558	48,200	36,286	31,815			29,904	33,000	48,000	2.1%
NOR	VA BEACH BLVD	KEMPSVILLE RD	NEWTOWN RD	0.93	27,329		37,717		36,154			31,507	43,500		36,674			36,304	41,000	52,000	1.6%
NOR	WESLEYAN DR	NORTHAMPTON BLVD	NCL VA BEACH	0.38	19,047		18,930		19,348					18,584	18,558		20,547	20,419	21,000	35,000	2.4%
NOR	WILLOW WOOD DR	GRANBY ST	TIDEWATER DR	1.10	12,313		11,977		10,670			12,417			11,716			12,077	12,000	12,000	0.0%
NOR	WILSON RD	BERKLEY AVE/CHESAPEAKE CL	INDIAN RIVER RD	0.44	16,106		11,037		10,223			9,475			9,043			9,184	10,000	9,000	-0.1%
NOR	WILSON RD	INDIAN RIVER RD	CAMPOSTELLA RD	0.22	16,106		11,037		10,223			9,475			9,043			9,184	10,000	6,000	-1.8%
POQ	EAST YORKTOWN RD	YORK CL	HUNT'S NECK RD	1.14			3,424		3,521									4,000	5,000	12,000	4.9%
POQ	EAST YORKTOWN RD	HUNT'S NECK RD	POQUOSON AVE	0.18			7,812		7,776							7,993			10,000	12,000	1.6%
POQ	LITTLE FLORIDA RD	WYTHE CREEK RD	POQUOSON AVE	1.44	10,695		11,841		12,167							12,868			14,000	18,000	1.4%
POQ	POQUOSON AVE	WYTHE CREEK RD	LITTLE FLORIDA RD	1.50	3,204		3,263		3,755				2,853			3,597			5,000	7,000	2.7%
POQ	VICTORY BLVD	YORK CO LINE	WYTHE CREEK RD	0.79	8,826		10,237		10,980				12,184			12,741			14,000	18,000	1.4%
POQ	WYTHE CREEK RD	HAMPTON CL	ALPHUS ST	0.96	12,892		14,216		13,558				13,093			13,991			16,000	20,000	1.4%
POQ	WYTHE CREEK RD	ALPHUS ST	LITTLE FLORIDA RD	0.12			15,482		15,316							15,438			17,000	21,000	1.2%
POQ	WYTHE CREEK RD	LITTLE FLORIDA RD	HUDGINS RD	0.25			11,889		12,119							13,207			15,000	18,000	1.2%
POQ	WYTHE CREEK RD	HUDGINS RD	POQUOSON AVE	0.61	6,796		8,820		8,426							8,491			10,000	13,000	1.7%
PORT	AIRLINE BLVD	CHESAPEAKE CL	GREENWOOD DR	0.30					11,610						13,281			14,462	15,000	16,000	0.4%
PORT	AIRLINE BLVD	GREENWOOD DR	ELMHURST LN	0.16	12,593		11,959		13,885			13,000			15,472			15,231	16,000	18,000	0.7%

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Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)													Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
PORT	AIRLINE BLVD	ELMHURST LN	.55 MI E ELMHURST LN	0.55	12,593		11,959		13,885			13,000			12,851			11,413	12,000	13,000	0.6%
PORT	AIRLINE BLVD	.55 MI E ELMHURST LN	VICTORY BLVD	0.75	12,593		11,959		13,885			13,000			12,851			11,413	12,000	13,000	0.6%
PORT	AIRLINE BLVD	VICTORY BLVD	PORTSMOUTH BLVD	0.29	16,386		15,716		16,702			16,000			17,303			15,800	17,000	19,000	0.8%
PORT	AIRLINE BLVD	PORTSMOUTH BLVD	FREDERICK BLVD	1.35	17,454		8,799		19,689			20,000			17,381			20,060	21,000	17,000	-0.7%
PORT	AIRLINE BLVD	FREDERICK BLVD	HIGH ST	0.20	20,142		20,906		25,805			26,000			21,337			21,154	22,000	19,000	-0.5%
PORT	BAYVIEW BLVD	MT VERNON AVE	CHAUTAUQUA AVE	0.21	17,580		26,476		30,540					30,845	21,250			15,744			-
PORT	CAVALIER BLVD	CHESAPEAKE CL	GREENWOOD DR	0.81	10,690		10,579		10,469			11,395			10,725			11,684	12,000	17,000	1.6%
PORT	CEDAR LN	HIGH ST	W NORFOLK RD	1.18	9,689		9,771		10,483			11,675			9,518		9,937	13,439	11,000	11,000	-0.9%
PORT	CEDAR LN	W NORFOLK RD	WESTERN FREEWAY	0.23	9,689		9,771		10,483			11,675			14,338			15,456	17,000	19,000	0.9%
PORT	CHAUTAUQUA AVE	CLEVELAND ST	DETROIT ST	0.12	8,442		10,876		12,420			12,295			11,838			14,487			-
PORT	CHAUTAUQUA AVE	DETROIT ST	WESLEY ST	0.13	8,442		10,876		12,420			12,295			11,677			15,630			-
PORT	CHAUTAUQUA AVE	WESLEY ST	BAYVIEW BLVD	0.27					21,252						22,776			13,054			-
PORT	CHURCHLAND BLVD	CHESAPEAKE CL	W NORFOLK RD	0.08								6,200		13,412	13,291		15,049	17,258	16,000	15,000	-0.6%
PORT	CHURCHLAND BLVD	W NORFOLK RD	TYRE NECK RD	0.12	8,731		9,002		9,011			9,100			9,416			13,202	12,000	9,000	-1.7%
PORT	CHURCHLAND BLVD	TYRE NECK RD	HIGH ST	0.30	8,731		9,002		9,011			9,100			9,888			13,834	12,000	10,000	-1.4%
PORT	CLEVELAND ST	CHAUTAUQUA AVE	M L K FWY	0.18	8,078		9,696		11,404			12,035			11,488			3,939			-
PORT	COUNTY ST	CONSTITUTION AVE	PENINSULA AVE	0.40	5,399		5,685		5,836			5,982			5,044			6,547	7,000	11,000	2.3%
PORT	COUNTY ST	PENINSULA AVE	ELM AVE	0.31	5,399		5,685		5,836			5,982			4,316			5,214	6,000	10,000	2.9%
PORT	COUNTY ST	ELM AVE	EFFINGHAM ST	0.33	3,138		4,822		4,506			5,316			4,616			4,555	6,000	11,000	3.9%
PORT	COURT ST	CRAWFORD ST	COUNTY ST	0.30	6,382		6,197		5,094			7,072			7,627			8,245	9,000	11,000	1.3%
PORT	COURT ST	COUNTY ST	HIGH ST	0.10	6,382		6,197		5,094			7,072			6,492			6,827	8,000	8,000	0.7%
PORT	COURT ST	HIGH ST	LONDON BLVD	0.10	6,382		6,197		5,094			7,072			4,758			4,236	5,000	5,000	0.7%
PORT	COURT ST	LONDON BLVD	CRAWFORD PKWY	0.24	6,382		6,197		5,094			7,072			1,128			1,199	2,000	2,000	2.2%
PORT	CRAWFORD PKWY	EFFINGHAM ST	CRAWFORD ST	0.43	5,985		5,467		4,781			5,000			4,200			4,574	5,000	5,000	0.4%
PORT	CRAWFORD ST	CRAWFORD PKWY	LONDON BLVD	0.22	5,985		5,467		4,781			5,000			4,602			3,994	5,000	5,000	1.0%
PORT	CRAWFORD ST	LONDON BLVD	HIGH ST	0.11	11,253		10,924		9,772			9,800			8,008			8,071	9,000	9,000	0.5%
PORT	CRAWFORD ST	HIGH ST	COUNTY ST	0.11	5,985		10,924		4,781			9,702			8,840			8,425	9,000	10,000	0.7%
PORT	CRAWFORD ST	COUNTY ST	COURT ST	0.23	5,985		10,924		4,781			9,702			8,298			8,699	9,000	12,000	1.4%
PORT	DEEP CREEK BLVD	VICTORY BLVD	GREENWOOD DR	0.83	7,012		6,165		7,609			8,000			7,028			6,615	7,000	7,000	0.2%
PORT	DEEP CREEK BLVD	GREENWOOD DR	PORTSMOUTH BLVD	0.73	9,889		9,047		9,895			8,638			8,843			8,790	9,000	10,000	0.6%
PORT	DEEP CREEK BLVD	PORTSMOUTH BLVD	FREDERICK BLVD	0.14	9,889		9,047		9,895			8,638			9,118			8,753	9,000	10,000	0.6%
PORT	DEEP CREEK BLVD	FREDERICK BLVD	DES MOINES AVE	0.77	8,154		6,008		6,701			7,000			5,990			6,577	7,000	6,000	-0.4%
PORT	DES MOINES AVE	DEEP CREEK BLVD	I-264	0.10	8,154		6,008		6,701			7,504			8,170			8,809	9,000	9,000	0.1%
PORT	EFFINGHAM ST	FREDERICK BLVD	ELM AVE	0.35	18,996		18,429		16,645			16,700			17,514			20,457	21,000	20,000	-0.1%
PORT	EFFINGHAM ST	ELM AVE	PORTSMOUTH BLVD	0.70	12,843		16,180		14,498			14,500			13,645			18,250	15,000	17,000	-0.3%
PORT	EFFINGHAM ST	PORTSMOUTH BLVD	I-264	0.77	21,227		25,512		24,448			21,964			22,920			26,939	27,000	26,000	-0.2%
PORT	EFFINGHAM ST	I-264	SOUTH ST	0.14	17,423		25,865		27,640						33,474			37,288	35,000	39,000	0.2%
PORT	EFFINGHAM ST	SOUTH ST	HIGH ST	0.21	17,423		25,865		27,640						30,863			28,192	31,000	34,000	0.8%
PORT	EFFINGHAM ST	HIGH ST	LONDON BLVD	0.11	17,423		25,865		27,640						25,353			23,495	26,000	23,000	-0.1%
PORT	EFFINGHAM ST	LONDON BLVD	NORTH ST	0.10	17,423		25,865		27,640						21,120			17,317	22,000	21,000	0.8%

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)													Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
PORT	EFFINGHAM ST	NORTH ST	CRAWFORD PKWY	0.19	11,965		15,982		17,648			18,293			16,953			16,878	17,000	17,000	0.0%
PORT	EFFINGHAM ST	CRAWFORD PKWY	ENT OSN HOSP	0.09	11,965		15,982		17,648			18,293			19,152			15,627	19,000	12,000	-1.1%
PORT	ELM AVE	LONDON BLVD	HIGH ST	0.10	10,983		10,529		11,560			13,851			5,569			6,822	7,000	14,000	3.2%
PORT	ELM AVE	HIGH ST	COUNTY ST	0.10	10,983		10,529		11,560			9,832			8,177			9,799	10,000	13,000	1.2%
PORT	ELM AVE	COUNTY ST	SOUTH ST	0.19	10,983		10,529		11,560			9,832			8,477			10,434	11,000	13,000	1.0%
PORT	ELM AVE	SOUTH ST	I-264	0.09	10,983		10,529		11,560			9,832			7,970			9,401	10,000	9,000	-0.2%
PORT	ELM AVE	I-264	PORTSMOUTH BLVD	0.70	9,176		7,754		7,333			7,161			6,531			9,086	10,000	8,000	-0.6%
PORT	ELM AVE	PORTSMOUTH BLVD	GEORGE WASHINGTON HWY	0.34	7,179		7,252		6,561			7,000			5,132			7,087	8,000	7,000	-0.1%
PORT	ELM AVE	GEORGE WASHINGTON HWY	VICTORY BLVD	0.70	12,565		13,005		11,051			11,100			5,164			9,628	9,000	11,000	0.6%
PORT	ELM AVE	VICTORY BLVD	BURTONS POINT RD	0.30	12,565		13,005		11,051			11,100			8,625			9,757	9,000	15,000	1.9%
PORT	ELM AVE	BURTONS POINT RD	CHESAPEAKE CL	0.31	10,218		9,000		7,880						6,496			7,919	9,000	14,000	2.5%
PORT	ELMHURST LN	AIRLINE BLVD	PORTSMOUTH BLVD	1.03	6,618		5,522		5,769			7,274			6,803			7,459	8,000	8,000	0.3%
PORT	FREDERICK BLVD	GEORGE WASHINGTON HWY	PORTSMOUTH BLVD	0.66	12,942		11,710		12,344						12,045			13,657	14,000	14,000	0.1%
PORT	FREDERICK BLVD	PORTSMOUTH BLVD	DEEP CREEK BLVD	0.08	19,361		18,421		20,146			20,200			13,930			15,518	16,000	15,000	-0.1%
PORT	FREDERICK BLVD	DEEP CREEK BLVD	I-264	0.52	19,361		18,421		20,146			20,200			20,811			20,780	21,000	23,000	0.4%
PORT	FREDERICK BLVD	I-264	TURNPIKE RD	0.36	44,029		40,425		39,844			36,030			45,671			43,929	46,000	48,000	0.4%
PORT	FREDERICK BLVD	TURNPIKE RD	AIRLINE BLVD	0.51	31,545		29,204		29,810			29,900			34,585			26,835	34,000	36,000	1.3%
PORT	FREDERICK BLVD	AIRLINE BLVD	HIGH ST	0.14	21,396		19,001		19,067			19,100			19,875			20,509	21,000	22,000	0.3%
PORT	GEORGE WASHINGTON HWY	CHESAPEAKE CL	VICTORY BLVD	0.17	21,478		19,643		20,696						29,034			30,183	32,000	36,000	0.8%
PORT	GEORGE WASHINGTON HWY	VICTORY BLVD	DAVIS ST	0.19	21,478		19,643		20,696			20,700			20,505			22,962	23,000	23,000	0.0%
PORT	GEORGE WASHINGTON HWY	DAVIS ST	GREENWOOD DR	0.42	21,478		19,643		21,063			21,100			21,685			23,239	24,000	24,000	0.1%
PORT	GEORGE WASHINGTON HWY	GREENWOOD DR	FREDERICK BLVD	0.33	22,907		20,314		21,430			21,100			20,624			27,088	27,000	22,000	-0.9%
PORT	GREENWOOD DR	AIRLINE BLVD	I-264	0.50	21,554		20,420		20,058			20,100			17,707			17,534	18,000	20,000	0.6%
PORT	GREENWOOD DR	I-264	CAVALIER BLVD	0.88	13,624		13,300		13,457			13,500			13,682			15,824	17,000	17,000	0.3%
PORT	GREENWOOD DR	CAVALIER BLVD	VICTORY BLVD	0.63	13,624		13,300		13,457			13,500			10,554			10,469	11,000	15,000	1.6%
PORT	GREENWOOD DR	VICTORY BLVD	INDEPENDENCE ST	1.05	5,200		5,466					5,568			3,530			4,428	5,000	4,000	-0.4%
PORT	GREENWOOD DR	INDEPENDENCE ST	DEEP CREEK BLVD	0.37	5,200		5,466					5,568			3,411			3,926	5,000	4,000	0.1%
PORT	GREENWOOD DR	DEEP CREEK BLVD	GEORGE WASHINGTON HWY	0.51	3,949		3,475		3,484			3,500			3,138			3,375	4,000	4,000	0.7%
PORT	HIGH ST	TYRE NECK RD	CHURCHLAND BLVD	0.22	28,660		25,177		22,725			23,000			20,990			23,388	23,000	22,000	-0.3%
PORT	HIGH ST	CHURCHLAND BLVD	CEDAR LA	0.89	31,911		28,276		27,828			28,000			28,050			33,493	30,000	29,000	-0.6%
PORT	HIGH ST	CEDAR LA	FREDERICK BLVD	2.39	37,236		33,759		31,536						31,856			40,944	34,000	30,000	-1.3%
PORT	HIGH ST	FREDERICK BLVD	AIRLINE BLVD	0.12	22,501		19,628		18,323			19,000						18,264	20,000	14,000	-1.1%
PORT	HIGH ST	AIRLINE BLVD	MT VERNON AVE	0.23	16,315		16,640		16,937			17,000			14,776			17,333	18,000	12,000	-1.6%
PORT	HIGH ST	MT VERNON AVE	M L K FWY	0.48	16,315		16,640		16,937			17,000			17,637			19,625	20,000	15,000	-1.2%
PORT	HIGH ST	M L K FWY	ELM AVE	0.79	13,638		15,188		15,022			12,331			16,447			17,589	18,000	21,000	0.8%
PORT	HIGH ST	ELM AVE	EFFINGHAM ST	0.33	13,638		15,188		15,022			12,331			11,129			12,009	12,000	19,000	2.0%
PORT	HIGH ST	EFFINGHAM ST	CRAWFORD ST	0.51	7,851		7,260		6,077			6,100			7,147			7,291	7,000	11,000	1.8%
PORT	LONDON BLVD	HIGH ST	MT VERNON AVE	0.31	26,414		26,356		25,552									26,000	26,000	16,000	-2.1%
PORT	LONDON BLVD	MT VERNON AVE	M L K FWY	0.40	26,414		26,356		25,552									26,000	26,000	20,000	-1.1%
PORT	LONDON BLVD	M L K FWY	ELM AVE	0.86	24,129		27,562		25,403			25,400			27,102			27,192	28,000	33,000	0.8%

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Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)													Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
PORT	LONDON BLVD	ELM AVE	EFFINGHAM ST	0.32	24,129		27,562		25,403			25,400			23,708			23,357	24,000	21,000	-0.5%
PORT	LONDON ST	EFFINGHAM ST	CRAWFORD ST	0.50	7,648		8,206		6,608			7,000			5,695			8,166	9,000	7,000	-0.7%
PORT	HARBOR ST	TURNPIKE RD	HIGH ST	0.16			3,898					4,000			4,586			4,302	5,000	12,000	4.6%
PORT	MIDTOWN TUNNEL	MLK FWY/WESTERN FREEWAY	NORFOLK CL	0.95			38,000		34,606			38,221	35,852	35,551	36,431	37,217	37,527	35,309	38,000	64,000	2.6%
PORT	MT VERNON AVE	HIGH ST	LONDON BLVD	0.14	8,021		10,732		11,914						4,327			5,529			-
PORT	MT VERNON AVE	LONDON BLVD	BAYVIEW BLVD	1.22	8,021		10,732		11,303						11,928			15,849			-
PORT	PORTCENTRE PKWY	PORTSMOUTH BLVD	CRAWFORD ST	0.68	6,449		7,835		6,088			7,122			10,338			9,599	10,000	11,000	0.6%
PORT	PORTSMOUTH BLVD	CHESAPEAKE CL	ELMHURST LN	1.01	31,662		31,462		30,273						31,586			31,792	33,000	36,000	0.5%
PORT	PORTSMOUTH BLVD	ELMHURST LN	VICTORY BLVD	1.19	27,481		25,088		23,571			21,971			23,136			30,228	31,000	26,000	-0.7%
PORT	PORTSMOUTH BLVD	VICTORY BLVD	AIRLINE BLVD	0.22	13,283		13,831		14,341			15,000			18,921			22,138	23,000	21,000	-0.2%
PORT	PORTSMOUTH BLVD	AIRLINE BLVD	TURNPIKE RD	0.10	13,283		13,831		14,341			15,000			17,449			18,161	19,000	23,000	1.0%
PORT	PORTSMOUTH BLVD	TURNPIKE RD	I-264	0.35	13,283		13,831		14,341			15,000			15,507			14,720	16,000	18,000	0.9%
PORT	PORTSMOUTH BLVD	I-264	DEEP CREEK BLVD	1.07	11,475		11,494		11,141			11,500			10,503			12,161	12,000	13,000	0.3%
PORT	PORTSMOUTH BLVD	DEEP CREEK BLVD	FREDERICK BLVD	0.17	11,475		11,494		11,141			11,500			6,552			8,134	8,000	9,000	0.4%
PORT	PORTSMOUTH BLVD	FREDERICK BLVD	ELM AVE	0.77	9,116		8,157		8,163			8,269			12,068			7,835	8,000	10,000	1.1%
PORT	PORTSMOUTH BLVD	ELM AVE	EFFINGHAM ST	0.34	4,518		4,022		4,061			4,100			4,256			6,064	6,000	8,000	1.2%
PORT	PORTSMOUTH BLVD	EFFINGHAM ST	PORTCENTRE PKWY	0.54	4,134		3,667		3,276			3,500			4,817			5,260	6,000	5,000	-0.2%
PORT	TOWN POINT RD	SUFFOLK CL	TWIN PINES RD	0.72			5,626		5,513						7,694			12,048	12,000	14,000	0.7%
PORT	TOWN POINT RD	TWIN PINES RD	WESTERN FREEWAY	0.11			20,785		21,422			23,852			24,711			30,426	30,000	30,000	-0.1%
PORT	TOWN POINT RD	WESTERN FREEWAY	CHESAPEAKE CL	0.25			23,583		21,396			17,894			20,791			25,220	25,000	28,000	0.5%
PORT	TURNPIKE RD	PORTSMOUTH BLVD	FREDERICK BLVD	1.06	8,412		7,999		7,523			7,600			8,557			7,488	8,000	13,000	2.4%
PORT	TURNPIKE RD	FREDERICK BLVD	HOWARD ST	0.29	13,221		11,944		12,267			11,513			15,891			15,167	16,000	19,000	1.0%
PORT	TURNPIKE RD	HOWARD ST	HARBOR DR	0.53	13,221		11,944		12,267			11,513			11,461			10,781	13,000	18,000	2.3%
PORT	TURNPIKE RD	HARBOR DR	COUNTY ST	0.10	13,221		11,944		12,267			11,513			11,461			10,781	13,000	23,000	3.3%
PORT	TWIN PINES RD	TOWN POINT RD	HEDGEROW LN	1.38			8,169		9,014			9,315			9,794			10,957	11,000	10,000	-0.4%
PORT	TYRE NECK RD	CHESAPEAKE CL	HIGH ST	0.24	10,602		11,244		10,470			11,015			11,904			12,400	13,000	14,000	0.5%
PORT	TYRE NECK RD	HIGH ST	CHURCHLAND BLVD	0.18	7,051		6,580		6,386						5,631			5,592	6,000	7,000	1.0%
PORT	TYRE NECK RD	CHURCHLAND BLVD	WEST NORFOLK RD	0.07											3,724			3,593	4,000	6,000	2.3%
PORT	VICTORY BLVD	PORTSMOUTH BLVD	AIRLINE BLVD	0.20	20,470		20,598		20,374			20,400			7,137			8,111	9,000	8,000	-0.1%
PORT	VICTORY BLVD	AIRLINE BLVD	I-264	0.36	20,470		20,598		20,374			20,400			21,384			26,716	28,000	24,000	-0.5%
PORT	VICTORY BLVD	I-264	GREENWOOD DR	0.55	21,840		19,199		14,358			20,734			21,698			26,304	8,000	26,000	-0.1%
PORT	VICTORY BLVD	GREENWOOD DR	DEEP CREEK BLVD	1.08	21,840		19,199		14,358			20,734			21,698			18,408	20,000	19,000	0.1%
PORT	VICTORY BLVD	DEEP CREEK BLVD	GEORGE WASHINGTON HWY	0.44	18,079		17,826		16,135			17,000			19,784			18,956	20,000	22,000	0.6%
PORT	VICTORY BLVD	GEORGE WASHINGTON HWY	AFTON PKWY	1.24	13,078		14,835		14,946			13,359			12,303			7,446	13,000	15,000	3.1%
PORT	VICTORY BLVD	AFTON PKWY	ELM AVE	0.57	9,033		9,522		7,553			8,000			8,586			7,321	9,000	15,000	3.2%
PORT	W NORFOLK RD	CHURCHLAND BLVD	TYRE NECK RD	0.11	12,631		7,381		6,529			6,352			3,253			3,906	4,000	5,000	1.1%
PORT	W NORFOLK RD	TYRE NECK RD	CEDAR LN	1.02	12,631		7,381		6,529			6,352			6,364			6,685	7,000	11,000	2.2%
PORT	W NORFOLK RD	CEDAR LN	WESTERN FWY	1.58	15,472		4,835		4,182			4,500			4,260		4,755	6,084	8,000	7,000	0.6%
PORT	WESLEY ST	CHAUTAUQUA AVE	MLK FWY	0.22	7,837		11,013		12,603			14,000			12,409						-
PORT	WESTERN BRANCH BLVD	CHESAPEAKE CL	TYRE NECK RD	0.21	28,660		25,177		22,725			23,000			21,289			23,758	24,000	23,000	-0.1%

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SUF	BENNETTS PASTURE RD	KINGS HWY	BRIDGE RD	3.38			5,071		5,966					6,317	6,577		7,091		10,000	20,000	4.4%
SUF	BRIDGE RD	ISLE OF WIGHT CL	E. END CHUCKATUCK BRIDGE	0.60			10,141		9,074					10,899			11,538		16,000	23,000	2.9%
SUF	BRIDGE RD	E. END CHUCKATUCK BRIDGE	CRITTENDEN RD	0.57			8,432		9,074					10,899			11,538		16,000	23,000	2.9%
SUF	BRIDGE RD	CRITTENDEN RD	N. END NANSEMOND RIVER	0.79			10,141		9,074					13,362			14,966		18,000	25,000	2.2%
SUF	BRIDGE RD	N. END NANSEMOND RIVER	S. END NANSEMOND RIVER	0.93			10,141		9,074					13,362			14,966		18,000	25,000	2.2%
SUF	BRIDGE RD	S. END NANSEMOND RIVER	BENNETTS PASTURE RD	0.75			10,141		12,288					13,362	14,533		14,966		18,000	25,000	2.2%
SUF	BRIDGE RD	BENNETTS PASTURE RD	SHOULDERS HILL RD	1.58			10,141		18,865					19,668		23,779	23,441		31,000	35,000	1.7%
SUF	BRIDGE RD	SHOULDERS HILL RD	HARBOR VIEW BLVD	1.34			10,141		18,865					19,668		23,779	23,441		31,000	41,000	2.4%
SUF	BRIDGE RD	HARBOR VIEW BLVD	WESTERN FWY	0.10			10,141		18,865					19,668		23,779	23,441		31,000	40,000	2.3%
SUF	BRIDGE RD	WESTERN FWY	I-664	0.43			10,141		18,865					19,668		23,779	23,441		31,000	25,000	0.3%
SUF	BRIDGE RD	I-664	COLLEGE DR	0.54			10,141		18,865			0		16,582			17,648		19,000	22,000	0.9%
SUF	BRIDGE RD	COLLEGE DR	CHESAPEAKE CL	0.07			28,531		22,863				17,667	20,035	19,398	19,604	21,658	22,415	24,000	25,000	0.5%
SUF	CAROLINA RD	NC STATE LINE	RTE 642	2.89			4,124		4,246					3,316	3,344		3,507		4,000	8,000	3.5%
SUF	CAROLINA RD	RTE 642	RTE 675	2.06			4,124		4,246					3,724			4,017		4,000	8,000	2.9%
SUF	CAROLINA RD	RTE 675	BABBTOWN RD (RTE 759)	1.40			4,124		4,246					4,162			4,026		4,000	8,000	2.9%
SUF	CAROLINA RD	BABBTOWN RD (RTE 759)	WHALEYVILLE BLVD	3.08			4,124		4,246					4,254			4,636		5,000	8,000	2.3%
SUF	CAROLINA RD	WHALEYVILLE BLVD	TURLINGTON RD	0.87			14,806		14,761					14,301			15,342		16,000	23,000	1.7%
SUF	CAROLINA RD	TURLINGTON RD	SUFFOLK SW BYPASS	0.61			14,806		14,761					14,301			15,342		16,000	24,000	1.9%
SUF	CAROLINA RD	SUFFOLK SW BYPASS	FAYETTE ST	1.84	13,827		14,837		15,443					14,852			15,083		15,000	22,000	1.6%
SUF	COLLEGE DR	BRIDGE RD	WESTERN FREEWAY	0.14										10,929			14,765		16,000	14,000	-0.2%
SUF	COLLEGE DR	WESTERN FREEWAY	TOWN POINT RD	0.74			10,288		9,764					10,515			16,473		20,000	27,000	2.1%
SUF	COLLEGE DR	TOWN POINT RD	I-664	0.70			10,288		9,764					11,293			19,810		22,000	20,000	0.0%
SUF	COLLEGE DR	I-664	HARBOR VIEW BLVD	0.60			7,060		6,362					5,345			8,277		10,000	8,000	-0.1%
SUF	CONSTANCE RD	HOLLAND RD	PITCHKETTLE RD	0.28	9,693		8,444		11,312					9,779			9,964		10,000	10,000	0.0%
SUF	CONSTANCE RD	PITCHKETTLE RD	MAIN ST	0.85	9,693		8,444		11,312					11,666			11,156		11,000	13,000	0.6%
SUF	CONSTANCE RD	MAIN ST	WILROY RD	0.88	13,867		16,358		17,226					15,553			15,066		16,000	24,000	2.0%
SUF	COPELAND RD	ROUTE 58	WHALEYVILLE BLVD	5.26													990		1,000	1,000	0.0%
SUF	COPELAND RD	WHALEYVILLE BLVD	CAROLINA RD	1.56													720		1,000	1,000	1.4%
SUF	CRITTENDEN RD	KINGS HWY	BRIDGE RD (RTE 17)	5.26			1,429		1,514					1,842			1,753		4,000	8,000	6.5%
SUF	EVERETTS RD	LAKE PRINCE DR (RTE 604)	MOORE FARM LN	1.42			1,502		1,667					1,806			1,820		2,000	2,000	0.4%
SUF	EVERETTS RD	MOORE FARM LN	GODWIN BLVD	0.93										1,480			1,740		2,000	2,000	0.6%
SUF	FINNEY AVE	N MAIN ST	PINNER ST	0.20										3,534			7,186		7,000	5,000	-1.5%
SUF	GODWIN BLVD	PRUDEN BLVD	SUFFOLK BYPASS	0.54										15,282		18,042	18,732		19,000	22,000	0.7%
SUF	GODWIN BLVD	SUFFOLK BYPASS	KINGS FORK RD	1.40			10,444		10,472					9,383	13,404		10,393		13,000	24,000	3.5%
SUF	GODWIN BLVD	KINGS FORK ROAD	1.36 MI N OF KINGS FORK RD	1.36			10,444		10,472					9,383	13,404		10,393		13,000	16,000	1.8%
SUF	GODWIN BLVD	1.36 MILES N OF KINGS FORK RD	EVERETS RD	3.46			10,444		10,472					9,383	13,404		10,393		13,000	15,000	1.5%
SUF	GODWIN BLVD	EVERETS RD	KINGS HWY	0.87			9,833		10,569					9,383		13,263	10,393		13,000	19,000	2.5%
SUF	GODWIN BLVD	KINGS HWY	ISLE OF WIGHT CL	1.31			4,611	9,000						8,413	9,840		10,348		14,000	15,000	1.6%
SUF	HARBOUR VIEW BLVD	BRIDGE RD	TOWN POINT RD	1.02											2,200				4,000	7,000	4.6%
SUF	HOLLAND RD (BUS RTE 58)	SUFFOLK BYPASS	CONSTANCE RD	1.86			13,806							11,716			12,426		13,000	14,000	0.5%

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					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
SUF	HOLLAND RD (BUS RTE 58)	RURITAN BLVD	HOLLAND RD (RTE 58)	0.70										3,589			3,284		4,000	5,000	1.8%
SUF	KINGS FORK RD	PITCHKETTLE RD	PRUDEN BLVD	0.64			1,008		1,633					1,609			2,044		2,000	3,000	1.6%
SUF	KINGS FORK RD	PRUDEN BLVD	GODWIN BLVD	2.27			1,289		1,767					2,227			2,931		3,000	7,000	3.7%
SUF	KINGS HWY	GODWIN BLVD	CRITTENDEN RD	0.69			3,339		3,989					3,242		4,792	2,681		4,000	10,000	5.6%
SUF	KINGS HWY	CRITTENDEN RD	BENNETTS PASTURE RD	5.07			3,339		3,989					3,242			2,681		4,000	7,000	4.1%
SUF	KINGS HWY	BENNETTS PASTURE RD	NANSEMOND PKWY	0.48			3,339		3,989					3,242			2,681		4,000	10,000	5.6%
SUF	LAKE PRINCE DR (RTE 604)	RTE 460 (PRUDEN BLVD)	RTE 603 (EVERETS RD)	3.93			1,060		1,081					1,337			1,744		2,000	3,000	2.3%
SUF	MAIN ST	FAYETTE ST	WASHINGTON ST	0.35	14,856		14,296		17,002					13,196			13,300		13,000	16,000	0.8%
SUF	MAIN ST	WASHINGTON ST	CONSTANCE RD	0.67	14,856		19,193		17,002					20,943			21,500		22,000	28,000	1.1%
SUF	MAIN ST	CONSTANCE RD	GODWIN BLVD	1.41									22,620	24,940	27,844		28,298	28,692	30,000	35,000	0.9%
SUF	MARKET ST	WASHINGTON ST	MAIN ST	0.49	5,517		5,414		5,660					4,739			5,020		5,000	8,000	2.0%
SUF	NANSEMOND PKWY	WILROY RD	KINGS HWY	3.05			7,796		9,197					5,544			6,280		8,000	17,000	4.2%
SUF	NANSEMOND PKWY	KINGS HWY	SHOULDERS HILL RD	1.77			8,267		10,664		11,726			10,819			11,171		14,000	23,000	3.1%
SUF	NANSEMOND PKWY	SHOULDERS HILL RD	CHESAPEAKE CL	0.75			8,267		10,664		11,726			10,819			11,171		14,000	24,000	3.2%
SUF	PINNER ST	WASHINGTON ST	CONSTANCE RD	1.24	7,127		8,161		9,767					7,740			7,930		8,000	12,000	1.7%
SUF	PITCHKETTLE RD	CONSTANCE RD	SUFFOLK BYPASS	1.36										3,060			3,022		3,000	5,000	2.1%
SUF	PITCHKETTLE RD	SUFFOLK BYPASS	KINGS FORK RD	2.41										1,721			1,766		2,000	4,000	3.5%
SUF	PORTSMOUTH BLVD	WILROY RD	WASHINGTON ST	1.59			9,000							9,266			0		10,000	15,000	1.8%
SUF	PORTSMOUTH BLVD	WASHINGTON ST	SUFFOLK BYPASS	1.04										22,038			23,335		24,000	30,000	1.1%
SUF	PROVIDENCE RD (RTE 604)	KINGS FORK RD	RTE 460 (PRUDEN BLVD)	0.50										1,102			1,079		1,000	4,000	5.6%
SUF	PRUDEN BLVD	ISLE OF WIGHT CL	LAKE PRINCE DR	3.08			16,457		12,598					15,599	18,350		15,245		18,000	16,000	0.2%
SUF	PRUDEN BLVD	LAKE PRINCE DR	KINGS FORK RD	0.58			16,457		12,598					15,599	18,350		15,245		18,000	18,000	0.7%
SUF	PRUDEN BLVD	KINGS FORK RD	SUFFOLK BYPASS	1.47			16,457		19,724					15,599	18,350		15,245		18,000	19,000	0.9%
SUF	PRUDEN BLVD	SUFFOLK BYPASS	GODWIN BLVD	1.10										12,066		12,026	13,208		13,000	19,000	1.5%
SUF	PUGHSVILLE RD	SHOULDERS HILL RD	TOWN POINT RD	1.20			2,473		2,287					2,215			3,175		4,000	10,000	4.9%
SUF	PUGHSVILLE RD	TOWN POINT RD	CHESAPEAKE CL	0.08			2,473		2,287			3,030		4,624			7,231		9,000	13,000	2.5%
SUF	ROUTE 58	SOUTHAMPTON CL	RTE 189/260	1.34										0			17,340		18,000	26,000	1.7%
SUF	ROUTE 58	RTE 189/260	RTE 272 (S. QUAY RD)	1.26										18,153	16,906		17,513		18,000	30,000	2.3%
SUF	ROUTE 58	RTE 272	HOLLAND BYPASS	4.17										14,210	16,906		18,297		19,000	24,000	1.1%
SUF	ROUTE 58 (HOLLAND BYPASS)	S. QUAY RD (ROUTE 189)	RTE 58 (HOLLAND RD)	1.19										21,939			18,741		21,000	30,000	2.0%
SUF	ROUTE 58 (HOLLAND RD)	HOLLAND RD	RTE 649 (LUMMIS RD)	4.01	8,054									21,578			21,893		22,000	31,000	1.5%
SUF	ROUTE 58 (HOLLAND RD)	RTE 649 (LUMMIS RD)	RTE 643 (MANNING BRIDGE RD)	2.05	17,164									21,261			23,354		25,000	40,000	2.3%
SUF	ROUTE 58 (HOLLAND RD)	RTE. 643 (MANNING BRIDGE RD)	COVE POINT DR	1.03										26,691			28,450		30,000	40,000	1.4%
SUF	ROUTE 58 (HOLLAND RD)	COVE POINT DR	SUFFOLK BYPASS	1.20										29,427			29,314		31,000	40,000	1.3%
SUF	ROUTE 189 (IN HOLLAND)	BUS RTE 58 (RURITAN BLVD)	RTE 58 (SOUTH OF HOLLAND)	0.37										868			752		1,000	1,000	1.2%
SUF	ROUTE 189	SOUTHAMPTON CL	RTE 272	2.08			2,433		2,516					2,322			1,939		3,000	5,000	4.0%
SUF	ROUTE 189	RTE 272	RTE 58	0.83			2,433		2,516					3,049			4,159		5,000	6,000	1.5%
SUF	ROUTE 258	ISLE OF WIGHT CL	RTE 58	0.83			2,835		5,267					3,991			3,372		4,000	7,000	3.1%
SUF	ROUTE 272	ROUTE 189	ROUTE 58	1.33										1,599			1,406		2,000	6,000	6.2%
SUF	ROUTE 616	ROUTE 58	WHALEYVILLE BLVD	11.50					219					237			231		1,000	4,000	12.6%

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					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
SUF	ROUTE 616	WHALEYVILLE BLVD	CAROLINA RD	6.70													370		1,000	1,000	4.2%
SUF	RURITAN BLVD (BUS RTE 58)	ISLE OF WIGHT CL	RTE 189 (HOLLAND RD BUS)	2.65			4,027		3,401					2,821		2,869	2,891		3,000	4,000	1.4%
SUF	SHOULDERS HILL RD	NANSEMOND PKWY	PUGHSVILLE RD	1.44			3,268		3,072					3,489			4,727		6,000	10,000	3.2%
SUF	SHOULDERS HILL RD	PUGHSVILLE RD	BRIDGE RD	1.63			2,725		2,767					2,722			4,893		6,000	11,000	3.4%
SUF	TOWN POINT RD	PUGHSVILLE RD	BRIDGE RD	1.71										1,011			1,064	1,165	2,000	4,000	5.5%
SUF	TOWN POINT RD	HARBOUR VIEW BLVD	COLLEGE DR	0.80										4,809			5,466		9,000	19,000	5.3%
SUF	TOWN POINT RD	COLLEGE DR	PORTSMOUTH CL	0.60			5,626		5,513						7,607			12,048	12,000	14,000	0.7%
SUF	WASHINGTON ST	W CONSTANCE RD	SARATOGA ST	0.84	10,800		11,300		11,534					8,524			10,471		11,000	13,000	0.9%
SUF	WASHINGTON ST	SARATOGA ST	MAIN ST	0.08	8,280		8,270		8,644					8,929			7,992		9,000	11,000	1.3%
SUF	WASHINGTON ST	MAIN ST	PINNER ST	0.20	10,259		9,149							10,825			11,243		12,000	14,000	0.9%
SUF	WASHINGTON ST	PINNER ST	PORTSMOUTH BLVD	2.84	11,500		11,850		12,194					0			13,981		15,000	19,000	1.3%
SUF	WHALEYVILLE BLVD	NC STATE LINE	RTE 616 (MINERAL SPRING RD)	5.37	4,423		4,763		5,538				4,612	4,884	4,654	4,914	5,084	5,150	6,000	12,000	3.7%
SUF	WHALEYVILLE BLVD	RTE 616 (MINERAL SPRING RD)	RTE 677 (GREAT FORK RD)	1.27	4,423		4,763		5,538					5,483			6,332		7,000	12,000	2.7%
SUF	WHALEYVILLE BLVD	RTE 677 (GREAT FORK RD)	RTE 675 (CYPRESS CHAPEL RD)	0.83	7,357		7,815		7,995					6,718			7,947		8,000	12,000	1.7%
SUF	WHALEYVILLE BLVD	RTE 675 (CYPRESS CHAPEL RD)	RTE 759 (BABBTOWN RD)	3.28	7,357		7,815		7,995					9,536			8,992		9,000	12,000	1.2%
SUF	WHALEYVILLE BLVD	RTE 759 (BABBTOWN RD)	RTE 32 (CAROLINA RD)	2.56	7,357		7,815		7,995					8,464			9,387		10,000	12,000	1.0%
SUF	WILROY RD	CONSTANCE RD	SUFFOLK BYPASS	1.98			5,900							6,326			7,617		8,000	8,000	0.2%
SUF	WILROY RD	SUFFOLK BYPASS	NANSEMOND PKWY	1.89			5,705							0			8,024		9,000	12,000	1.7%
VB	21ST ST	PARKS AVE	PACIFIC AVE	0.53	11,204		10,758		11,647			0	10,482	11,175	11,190	11,794	11,016	14,981	15,000	14,000	-0.3%
VB	21ST ST	PACIFIC AVE	ATLANTIC AVE	0.06	11,204		10,758		11,647			0			6,786				7,000	4,000	-2.0%
VB	22ND ST	PARKS AVE	PACIFIC AVE	0.53	12,101		10,221		8,611			0		11,359	11,209	10,683	9,972	11,720	13,000	14,000	0.8%
VB	22ND ST	PACIFIC AVE	ATLANTIC AVE	0.06	12,101		10,221		8,611			0			2,420	2,778	4,589	3,735	4,000	3,000	-0.9%
VB	ATLANTIC AVE	83RD ST	PACIFIC AVE	2.62	21,795		22,611		21,701			24,117		23,910	23,327	23,535	23,201	26,014	26,000	30,000	0.6%
VB	ATLANTIC AVE	PACIFIC AVE	LASKIN RD	0.85	12,809		11,456		9,395						3,754	4,911		5,931	7,000	9,000	1.8%
VB	ATLANTIC AVE	LASKIN RD	25TH ST	0.41														7,000	8,000	4,000	-2.4%
VB	ATLANTIC AVE	25TH ST	22ND AVE	0.24														7,000	8,000	4,000	-2.4%
VB	ATLANTIC AVE	22ND AVE	21ST AVE	0.07														8,000	9,000	4,000	-3.0%
VB	ATLANTIC AVE	21ST ST	VA BEACH BLVD	0.27	20,186		25,199		21,709			12,300		9,143	7,355	9,969	12,185	11,280	12,000	6,000	-2.7%
VB	ATLANTIC AVE	VA BEACH BLVD	5TH ST	0.82	18,698		28,148		13,311				5,588	6,263	6,329	9,511		8,357	9,000	6,000	-1.4%
VB	BAKER RD	NEWTOWN RD	WITCHDUCK RD	1.33														DNE		15,000	-
VB	BAXTER RD	PRINCESS ANNE RD	INDEPENDENCE BLVD	0.96	N/A		19,069		21,067			21,392		20,800	20,749	20,929	22,761	24,393	25,000	23,000	-0.3%
VB	BIRDNECK RD	GENERAL BOOTH BLVD	NORFOLK AVE	2.29	16,806		16,959		16,805			14,520	13,630	17,294	17,777	19,693	20,343	18,116	22,000	16,000	-0.5%
VB	BIRDNECK RD	NORFOLK AVE	VA BEACH BLVD	0.31	16,806		16,959		16,805			14,520	13,630	17,294	17,777	19,647	22,312	18,880	22,000	25,000	1.2%
VB	BIRDNECK RD	VA BEACH BLVD	I-264	0.33			27,010					32,000				38,304	40,829	36,411	41,000	30,000	-0.8%
VB	BIRDNECK RD	I-264	LASKIN RD	0.58	22,315		26,480		25,228				22,518		23,375	19,194	25,845	24,858	26,000	30,000	0.8%
VB	BLACKWATER RD	PUNGO FERRY RD	CHESAPEAKE CL	4.47			1,977		2,041					2,146	1,972	2,148	1,931	2,475	3,000	7,000	4.6%
VB	CENTERVILLE TNPK	CHESAPEAKE CL	LYNNHAVEN PKWY	0.38			11,606							8,203	9,201	8,925	0	8,477	12,000	21,000	4.0%
VB	CENTERVILLE TNPK	LYNNHAVEN PKWY	KEMPSVILLE RD	0.75	N/A		16,430		18,443					8,203	12,948	8,925	0	13,987	15,000	28,000	3.1%
VB	CENTERVILLE TNPK	KEMPSVILLE RD	JAKE SEARS RD	0.88	15,525		15,319		12,570			17,410		16,159	16,115	15,264	17,046	17,414	19,000	34,000	3.0%
VB	CENTERVILLE TNPK	JAKE SEARS RD	INDIAN RIVER RD	0.95	15,525		15,319		12,570			17,410		16,159	16,115	15,264	17,046	17,414	19,000	35,000	3.1%

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Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
VB	CHESAPEAKE BAY BRIDGE-TUNNEL	SHORE DR	TOLL PLAZA	0.91	7,573		7,397	8,550	9,998			7,124	8,318	8,336	6,824	6,817	7,842	8,123	10,000	11,000	1.3%
VB	CHESAPEAKE BAY BRIDGE-TUNNEL	TOLL PLAZA	NCL VA BEACH	0.24	7,573		7,397	8,550	9,998			7,124	8,318	8,336	6,824	6,817	7,842	8,123	10,000	11,000	1.3%
VB	DAM NECK RD	PRINCESS ANNE RD	ROSEMONT RD	0.44	9,656		10,225							25,216	30,376	31,545	33,907	35,390	39,000	30,000	-0.7%
VB	DAM NECK RD	ROSEMONT RD	HOLLAND RD	0.55	9,656		10,225							25,216	30,376	31,545	33,907	35,390	39,000	31,000	-0.6%
VB	DAM NECK RD	HOLLAND RD	LONDON BRIDGE EXTENDED	0.72			12,854					29,762		38,066	38,399	39,158	41,333	42,733	44,000	37,000	-0.6%
VB	DAM NECK RD	LONDON BRIDGE EXTENDED	LONDON BRIDGE RD	0.86			12,854					29,762		38,066	42,453	46,369	46,937	49,046	52,000	36,000	-1.3%
VB	DAM NECK RD	LONDON BRIDGE RD	S.E. PARKWAY	1.95			10,562		19,689			20,783	21,291	23,011	25,302		30,427	29,676	33,000	23,000	-1.1%
VB	DAM NECK RD	S.E. PARKWAY	GENERAL BOOTH BLVD	1.02			10,562		19,689			20,783	21,291	23,011	22,461	38,284	27,824	26,902	30,000	35,000	1.2%
VB	DAM NECK RD	GENERAL BOOTH BLVD	UPTON DR	0.40			28,646		30,474						33,456	32,880	32,347	34,615	35,000	36,000	0.2%
VB	DAM NECK RD	UPTON DR	USN TRAINING CENTER	1.70										20,600	20,877	23,293	20,387	18,833	19,000	20,000	0.3%
VB	DIAMOND SPRINGS RD	NEWTOWN RD	WESLEYAN RD	0.41											18,819		22,038	21,976	23,000	26,000	0.7%
VB	DIAMOND SPRINGS RD	WESLEYAN RD	NORTHAMPTON BLVD	1.22			21,253		21,154				20,163	21,197	19,728	20,826	22,192		23,000	27,000	0.8%
VB	DIAMOND SPRINGS RD	NORTHAMPTON BLVD	SHORE DR	1.32	23,295		24,152		25,883				25,442	25,163	25,832	26,787	26,645	28,848	31,000	39,000	1.3%
VB	ELBOW RD	CHESAPEAKE CL	INDIAN RIVER RD	0.32										3,979	4,689	4,765	4,814	5,096	6,000	0	-
VB	ELBOW RD	INDIAN RIVER RD	SALEM RD	1.21			2,842							4,312	5,001	4,886	5,243	5,735	11,000	27,000	7.0%
VB	ELBOW RD EXTENDED	SALEM RD	PRINCESS ANNE RD	2.96											DNE			DNE	8,000	16,000	-
VB	FERRELL PKWY	INDIAN RIVER RD	PRINCESS ANNE RD	2.74	11,849		17,235	20,233	27,501		28,700	29,149		43,604	36,916	40,183	40,240	40,307	42,000	29,000	-1.4%
VB	FIRST COLONIAL RD	VA BEACH BLVD	I-264	0.22			34,623											42,000	46,000	19,000	-3.4%
VB	FIRST COLONIAL RD	I-264	LASKIN RD	0.35	32,257		34,623		33,970					40,470	39,982	41,086	40,889	40,764	42,000	48,000	0.7%
VB	FIRST COLONIAL RD	LASKIN RD	OLD DONATION PKWY	1.10	35,176		37,730		38,240			38,425		40,237	41,594	41,853	43,603	42,667	44,000	49,000	0.6%
VB	FIRST COLONIAL RD	OLD DONATION PKWY	GREAT NECK RD	0.89											17,881	18,149	16,036	18,136	20,000	49,000	4.4%
VB	GENERAL BOOTH BLVD	PRINCESS ANNE RD	NIMMO PKWY	0.30	32,703		32,664		29,627					34,016	32,900			35,389	40,000	22,000	-2.0%
VB	GENERAL BOOTH BLVD	NIMMO PKWY	LONDON BRIDGE RD	0.56	32,703		32,664		29,627					34,016	30,025	31,667	33,076		36,000	37,000	0.5%
VB	GENERAL BOOTH BLVD	LONDON BRIDGE RD	DAM NECK RD	1.51	32,703		32,664		29,627					36,367	34,192	36,273	35,008		38,000	40,000	0.6%
VB	GENERAL BOOTH BLVD	DAM NECK RD	OCEANA BLVD/PROSPERITY RD	0.60	50,247		52,462		50,310		55,619	49,822		62,858		50,127	53,902	63,086	66,000	52,000	-0.8%
VB	GENERAL BOOTH BLVD	OCEANA BLVD/PROSPERITY RD	BIRDNECK RD	1.20	27,148		30,779		28,913					30,749	31,649	34,287	35,836	38,060	39,000	28,000	-1.3%
VB	GENERAL BOOTH BLVD	BIRDNECK RD	HARBOUR POINT	1.61	19,349		18,844		21,116				18,610	21,556	27,640	23,269		24,532	26,000	14,000	-2.4%
VB	GREAT NECK RD	POTTERS RD	I-264	0.31			18,780		18,789				16,947	17,114	17,102			17,882	24,000	25,000	1.5%
VB	GREAT NECK RD	I-264	VA BEACH BLVD	0.05			18,780		18,789				16,947	17,114	17,102			17,882	24,000	25,000	1.5%
VB	GREAT NECK RD	VA BEACH BLVD	FIRST COLONIAL RD	2.36	31,843		35,689		38,278				37,315		36,216	36,630	38,506	41,260	44,000	43,000	0.2%
VB	GREAT NECK RD	FIRST COLONIAL RD	SHOREHAVEN RD	0.98	33,125		37,518		38,188			37,900		38,829	39,624	40,948	41,559	44,499	46,000	51,000	0.6%
VB	GREAT NECK RD	SHOREHAVEN RD	SHORE DR	2.24	30,954		34,400		36,869			28,158	34,104	33,288	33,692		36,169	38,158	40,000	34,000	-0.5%
VB	HAYGOOD RD	NEWTOWN RD	WESLEYAN DR	0.25					10,556					7,763		7,979	7,561	7,268	8,000	6,000	-0.8%
VB	HAYGOOD RD	WESLEYAN DR	INDEPENDENCE BLVD	1.10	16,524		17,234		18,219						16,684	18,651	18,608	19,559	21,000	23,000	0.7%
VB	HOLLAND RD	INDEPENDENCE BLVD	SOUTH PLAZA TRAIL	0.33	37,314		39,936		43,266			36,233		45,482	43,238		41,203	41,923	43,000	37,000	-0.5%
VB	HOLLAND RD	SOUTH PLAZA TRAIL	ROSEMONT RD	1.32	33,358		36,012		40,093		39,855	38,000		38,421	39,505	38,347	36,697	38,667	41,000	40,000	0.1%
VB	HOLLAND RD	ROSEMONT RD	LYNNHAVEN PKWY	1.15	26,704		31,545		33,599					34,218	34,679	34,005	34,576	32,587	36,000	46,000	1.5%
VB	HOLLAND RD	LYNNHAVEN PKWY	DAM NECK RD	1.07	28,910		32,474		33,606					31,163	29,360	38,769	34,887	35,039	37,000	43,000	0.9%
VB	HOLLAND RD	DAM NECK RD	NIMMO PKWY	1.93	9,826		10,481	13,210	9,138				11,876	13,300	16,886	16,950	17,437	16,991	19,000	26,000	1.9%
VB	HOLLAND RD	NIMMO PKWY	PRINCESS ANNE RD	0.76	9,826		10,481		9,138				11,876	13,300	11,880	12,466	0	11,546	13,000	10,000	-0.6%

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VB	INDEPENDENCE BLVD	INDIAN RIVER RD	SALEM RD	1.93										5,377	5,688	6,675	7,358	7,206	8,000	8,000	0.5%
VB	INDEPENDENCE BLVD	SALEM RD	PRINCESS ANNE RD	0.77			15,069		14,070					17,621	16,844	18,816	22,229	21,423	22,000	18,000	-0.8%
VB	INDEPENDENCE BLVD	PRINCESS ANNE RD	LYNNHAVEN PKWY	0.55			24,213		22,341			23,600		26,436	26,281	26,778	29,292	28,115	30,000	28,000	0.0%
VB	INDEPENDENCE BLVD	LYNNHAVEN PKWY	PLAZA TRAIL	1.65	13,739		16,433		18,188			20,146		25,083	27,671	32,186	36,718		38,000	32,000	-0.6%
VB	INDEPENDENCE BLVD	PLAZA TRAIL	HOLLAND RD	0.76	22,377		23,402		25,949				31,400		31,337	33,140	36,052	35,112	37,000	29,000	-0.8%
VB	INDEPENDENCE BLVD	HOLLAND RD	BAXTER RD	0.80	52,130				61,348		72,864	62,000		71,683	72,241	74,991	73,474	80,128	85,000	72,000	-0.5%
VB	INDEPENDENCE BLVD	BAXTER RD	I-264	0.23	57,035				66,002					72,000				86,008	91,000	92,000	0.3%
VB	INDEPENDENCE BLVD	I-264	VA BEACH BLVD	0.67	33,669				58,234		66,738	70,000			73,848			81,851	88,000	89,000	0.4%
VB	INDEPENDENCE BLVD	VA BEACH BLVD	JEANNE ST	0.28	31,899		34,577		47,522				49,437	50,677	54,476		53,924	53,472	58,000	58,000	0.4%
VB	INDEPENDENCE BLVD	JEANNE ST	PEMBROKE BLVD	1.07	31,899		34,577		47,522				49,437	50,677	54,476		53,924	53,472	58,000	65,000	0.9%
VB	INDEPENDENCE BLVD	PEMBROKE BLVD	HAYGOOD RD	0.90	40,896		43,069		47,198					46,156	44,057	42,436	49,461	52,029	55,000	58,000	0.5%
VB	INDEPENDENCE BLVD	HAYGOOD RD	NORTHAMPTON BLVD	1.77	35,492		38,221		46,021					39,403	39,174	39,779	42,696	43,743	45,000	43,000	-0.1%
VB	INDEPENDENCE BLVD	NORTHAMPTON BLVD	SHORE DR	0.58	21,783		24,847		19,635			25,435		24,216	25,180	24,344	23,995	24,898	27,000	34,000	1.4%
VB	INDIAN LAKES BLVD	FERRELL PKWY	INDIAN RIVER RD	0.45					15,744			15,484		11,597	13,829	12,483	12,914	12,583	15,000	15,000	0.8%
VB	INDIAN RIVER RD	CHESAPEAKE CL	MILITARY HWY	0.52	33,785		28,237		31,962		30,657			34,632	32,543	32,945	33,040	35,252	36,000	37,000	0.2%
VB	INDIAN RIVER RD	MILITARY HWY	PROVIDENCE RD	0.57	30,612		31,815		29,180					34,878	33,321			32,869	34,000	37,000	0.5%
VB	INDIAN RIVER RD	PROVIDENCE RD	I-64	0.66	35,825		31,394		36,180							36,086	38,358	39,142	39,000	42,000	0.3%
VB	INDIAN RIVER RD	I-64	CENTERVILLE TNPK	0.57	55,129		60,354		68,394					58,069	79,820	74,699		78,122	79,000	99,000	1.0%
VB	INDIAN RIVER RD	CENTERVILLE TNPK	KEMPSVILLE RD	0.72	43,944		53,665		58,840			55,985		59,164	63,152			67,533	70,000	68,000	0.0%
VB	INDIAN RIVER RD	KEMPSVILLE RD	FERRELL PKWY	0.24	40,846		48,938		51,887						61,386	61,718	64,562	64,453	67,000	60,000	-0.3%
VB	INDIAN RIVER RD	FERRELL PKWY	LYNNHAVEN PKWY	0.91							22,331				17,329	11,446	17,174	17,396	19,000	18,000	0.1%
VB	INDIAN RIVER RD	LYNNHAVEN PKWY	INDEPENDENCE BLVD	1.36										14,067	12,568	13,706	14,692	16,315	18,000	23,000	1.5%
VB	INDIAN RIVER RD	INDEPENDENCE BLVD	ELBOW RD	0.83	5,566		5,628		4,948					9,064	9,461	12,302	10,419	11,236	12,000	21,000	2.8%
VB	INDIAN RIVER RD	ELBOW RD	S.E. PARKWAY	1.12									2,866	4,218	5,237		4,902	5,465	7,000	40,000	9.0%
VB	INDIAN RIVER RD	S.E. PARKWAY	NORTH LANDING RD	1.70									2,866	4,218	5,237		4,902	5,465	7,000	19,000	5.6%
VB	INDIAN RIVER RD	NORTH LANDING RD	WEST NECK RD	2.84	3,445		4,072		3,669			2,765	3,000		4,036	4,455	5,896	7,348	9,000	11,000	1.8%
VB	INDIAN RIVER RD	WEST NECK RD	PRINCESS ANNE RD	1.97	3,445		4,072		3,669			2,765	3,000		4,036	4,455	5,896	7,348	9,000	7,000	-0.2%
VB	INTERNATIONAL PKWY	LYNNHAVEN PKWY	LONDON BRIDGE RD	1.02	13,407		15,985		18,458			12,400		12,347	12,637	12,075	12,852	14,301	17,000	14,000	-0.1%
VB	KEMPSVILLE RD	CHESAPEAKE CL	CENTERVILLE TNPK	1.01	15,560		15,661		16,972					26,922		0	27,311	29,819	43,000	34,000	0.6%
VB	KEMPSVILLE RD	CENTERVILLE TNPK	INDIAN RIVER RD	1.54	27,883		31,448		32,269			32,177	35,339	31,523	30,732	30,832	32,939	34,230	45,000	32,000	-0.3%
VB	KEMPSVILLE RD	INDIAN RIVER RD	PROVIDENCE RD	1.29	29,907		32,166		31,989					29,491	26,960	27,253	27,732	30,362	32,000	31,000	0.1%
VB	KEMPSVILLE RD	PROVIDENCE RD	PRINCESS ANNE RD	0.98	32,209		37,460		35,867			32,807		32,781	30,558	32,497	34,860	33,520	35,000	35,000	0.2%
VB	LASKIN RD	VA BEACH BLVD	FIRST COLONIAL RD	1.48	29,929		33,462		32,266				27,470	24,693	27,840	28,308	29,315	30,231	32,000	32,000	0.2%
VB	LASKIN RD	FIRST COLONIAL RD	WINWOOD DR	0.51	30,294		36,736		37,122			30,303		29,693	28,462	29,053	30,511		33,000	33,000	0.3%
VB	LASKIN RD	WINWOOD DR	BIRDNECK RD	0.98	30,294		36,736		37,122			30,303		29,693	26,198	21,288	32,491	28,776	30,000	37,000	1.1%
VB	LASKIN RD	BIRDNECK RD	PACIFIC AVE	0.97	27,793		22,982		29,131		28,944	0	24,822	27,506	28,744	26,301	28,454	29,604	31,000	23,000	-1.1%
VB	LASKIN RD/31ST ST	PACIFIC AVE	ATLANTIC AVE	0.06														7,753	10,000	8,000	0.1%
VB	LONDON BRIDGE RD	GENERAL BOOTH BLVD	DAM NECK RD	2.22	18,700				14,996			12,005	14,815	19,636	20,614	20,610	21,954	23,102	26,000	21,000	-0.4%
VB	LONDON BRIDGE RD (EXTENDED)	DAM NECK RD	SHIPPS CORNER RD	0.25										13,239	14,979	15,890	16,171	18,813	23,000	15,000	-1.0%
VB	LONDON BRIDGE RD	SHIPPS CORNER RD	INTERNATIONAL PKWY	1.34	18,248		22,342		21,709				25,395		25,058	23,864	29,269	27,157	32,000	33,000	0.9%

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
VB	LONDON BRIDGE RD	INTERNATIONAL PKWY	POTTERS RD/GREAT NECK RD	2.08	12,935		14,485		16,189		19,923	15,830	19,209		17,874	18,681	20,081	16,399	22,000	19,000	0.6%
VB	LYNNHAVEN PKWY	CHESAPEAKE CL	CENTERVILLE TNPK	0.55											DNE			DNE	14,000	23,000	-
VB	LYNNHAVEN PKWY	CENTERVILLE TNPK	INDIAN RIVER RD	2.07											DNE			DNE		22,000	-
VB	LYNNHAVEN PKWY	INDIAN RIVER RD	SALEM RD	2.01			23,626		21,005			16,187	23,012	18,381	16,285	19,406	22,735	24,436	35,000	22,000	-0.5%
VB	LYNNHAVEN PKWY	SALEM RD	PRINCESS ANNE RD	0.48			21,544		17,007				21,718		26,744		24,586	23,857	35,000	30,000	1.0%
VB	LYNNHAVEN PKWY	PRINCESS ANNE RD	INDEPENDENCE BLVD	0.67	29,795		39,613		27,596			39,300			25,307			27,826	33,000	31,000	0.5%
VB	LYNNHAVEN PKWY	INDEPENDENCE BLVD	ROSEMONT RD	0.56	29,795		39,613		27,596			39,300		37,661	38,722	37,542	41,132	39,282	42,000	39,000	0.0%
VB	LYNNHAVEN PKWY	ROSEMONT RD	HOLLAND RD	0.92	29,795		39,613		27,596			39,300			31,403			31,957	34,000	34,000	0.3%
VB	LYNNHAVEN PKWY	HOLLAND RD	S LYNNHAVEN RD	1.06	40,416		46,738		43,552					40,248	38,574	40,798	39,655	37,177	40,000	47,000	1.0%
VB	LYNNHAVEN PKWY	S LYNNHAVEN RD	INTERNATIONAL PKWY	0.61	46,324		46,667		44,844					43,323	48,791	47,469	49,789	46,521	50,000	30,000	-1.9%
VB	LYNNHAVEN PKWY	INTERNATIONAL PKWY	POTTERS RD	1.17	46,324		46,667		44,844			41,740		43,323	48,791		51,217	53,061	55,000	47,000	-0.5%
VB	LYNNHAVEN PKWY	POTTERS RD	I-264	0.20	52,235		59,635		63,261			0			72,818			77,148	80,000	47,000	-2.1%
VB	LYNNHAVEN PKWY	I-264	VA BEACH BLVD	0.42	26,825		29,105		31,026					27,074	28,294	29,967	29,993	32,719	33,000	31,000	-0.2%
VB	MILITARY HWY	CHESAPEAKE CL	PROVIDENCE RD	0.16	34,003		34,744		34,770					34,644			36,344		37,000	40,000	0.4%
VB	MILITARY HWY	PROVIDENCE RD	INDIAN RIVER RD	0.50	26,893		34,291					24,640		25,882	27,040	26,945	29,596	34,862	35,000	32,000	-0.4%
VB	MILITARY HWY	INDIAN RIVER RD	NORFOLK CL	0.98	44,840		49,787		58,250			37,924		41,328	40,936	41,357	46,861	51,099	54,000	46,000	-0.5%
VB	NEWTOWN RD	NORFOLK CL	BAKER RD	0.24	37,335		40,404		40,538			40,000			36,210		37,383	38,699	40,000	39,000	0.0%
VB	NEWTOWN RD	BAKER RD	DIAMOND SPRINGS RD	0.48			40,119		40,538			40,000			24,167	26,135		27,035	30,000	39,000	1.6%
VB	NEWTOWN RD	DIAMOND SPRINGS RD	HAYGOOD RD	0.90	11,975		10,434		10,556					7,763		7,979	7,561	7,268	8,000	10,000	1.4%
VB	NIMMO PKWY	NORTH LANDING RD	WEST NECK RD	2.22														DNE		13,000	-
VB	NIMMO PKWY	WEST NECK RD	PRINCESS ANNE RD	0.85														8,000	10,000	13,000	2.1%
VB	NIMMO PKWY	PRINCESS ANNE RD	HOLLAND RD	0.57											DNE			DNE	18,000	25,000	-
VB	NIMMO PKWY	HOLLAND RD	GENERAL BOOTH BLVD	2.02											DNE			DNE		20,000	-
VB	NIMMO PKWY	GENERAL BOOTH BLVD	UPTON DR	0.69											DNE		8,803	10,176	13,000	15,000	1.7%
VB	NIMMO PKWY	UPTON DR	SANDBRIDGE RD	2.65														DNE		9,000	-
VB	NORFOLK AVE	BIRDNECK RD	PACIFIC AVE	1.40			7,040		7,728				7,214	9,042	7,143	11,266	9,500	10,228	11,000	8,000	-1.1%
VB	NORFOLK AVE	PACIFIC AVE	ATLANTIC AVE	0.06			7,040		7,728				7,214	9,042	4,191	3,702	4,148	3,909	5,000	6,000	1.9%
VB	NORTHAMPTON BLVD	WESLEYAN DR/NORFOLK CL	DIAMOND SPRINGS RD	0.98			54,778		57,691					64,804	63,148	66,897	73,989	66,186	71,000	84,000	1.0%
VB	NORTHAMPTON BLVD	DIAMOND SPRINGS RD	INDEPENDENCE BLVD	2.13			41,419		44,606				37,612	37,683	41,348		39,794	39,750	44,000	59,000	1.7%
VB	NORTHAMPTON BLVD	INDEPENDENCE BLVD	SHORE DR	1.01			25,463		26,053			29,238		24,643	23,750		23,524	28,895	31,000	33,000	0.6%
VB	NORTH LANDING RD	CHESAPEAKE CL	INDIAN RIVER RD	1.12	7,915		9,148		9,161					10,202	9,968	9,395	9,836	9,513	11,000	12,000	1.0%
VB	NORTH LANDING RD	INDIAN RIVER RD	SALEM RD	0.36	6,899		8,043		6,869		9,039	10,300	9,021	0	7,887	7,902	8,349	7,639	14,000	19,000	4.0%
VB	NORTH LANDING RD	SALEM RD	WEST NECK RD	2.08	6,899		8,043		6,869		9,039	10,300	9,021	0	7,887	7,902	8,349	7,639	14,000	14,000	2.7%
VB	NORTH LANDING RD	WEST NECK RD	PRINCESS ANNE RD	0.57	6,899		8,043		6,869		9,039	10,300	9,021	0	7,887	7,902	8,349	12,349	9,000	10,000	-0.9%
VB	OCEANA BLVD	GENERAL BOOTH BLVD	S.E. PARKWAY	0.63	24,720		27,511		25,622						27,613	23,879	25,560		28,000	36,000	1.4%
VB	OCEANA BLVD	S.E. PARKWAY	TOMCAT BLVD (NAS MAIN ENT)	0.39	24,720		25,528		25,622						27,613	23,879	25,560		28,000	36,000	1.4%
VB	OCEANA BLVD/FIRST COLONIAL RD	TOMCAT BLVD (NAS MAIN ENT)	VA BEACH BLVD	3.11	25,528		27,718		25,854		25,770		25,250	30,739	33,024	27,609	28,796	32,305	34,000	20,000	-2.1%
VB	OCEANA BLVD	RELOC OCEANA BLVD	SOUTHERN BLVD	0.19									25,250	31,068	33,024	27,609	28,796				-
VB	OCEANA BLVD	SOUTHERN BLVD	VA BEACH BLVD	0.30											21,000						-
VB	PACIFIC AVE	ATLANTIC AVE	LASKIN RD	0.83	23,093		22,329		22,770					0	20,102	25,075	24,176	23,423	25,000	15,000	-1.9%

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					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
VB	PACIFIC AVE	LASKIN RD	22ND ST	0.65	21,432		23,288		22,264						18,210	22,854	20,543	23,019	24,000	20,000	-0.6%
VB	PACIFIC AVE	22ND ST	21ST ST	0.07	21,432										18,210	22,854	20,543	23,019	24,000	19,000	-0.8%
VB	PACIFIC AVE	21ST ST	VA BEACH BLVD	0.27	22,996		32,743		26,165			15,415			18,768	18,972	19,220	20,996	22,000	20,000	-0.2%
VB	PACIFIC AVE	VA BEACH BLVD	5TH ST	0.82	17,240		20,331		19,419					19,005	19,374	17,029	21,025	20,981	22,000	14,000	-1.7%
VB	PACIFIC AVE	5TH ST	HARBOUR POINT	0.28	17,240		20,331		19,419					21,556	27,640	23,269		24,532	26,000	16,000	-1.8%
VB	PEMBROKE BLVD	WITCHDUCK RD	INDEPENDENCE BLVD	0.40			13,525		13,005			0			12,376	12,387	12,189	11,602	13,000	14,000	0.8%
VB	PLAZA TRAIL	PRINCESS ANNE RD	INDEPENDENCE BLVD	0.76									9,200		9,729	10,102	9,498	10,578	12,000	12,000	0.5%
VB	PLAZA TRAIL	INDEPENDENCE BLVD	HOLLAND RD	0.49			9,779		9,007					12,866	12,516	12,466	13,110	13,868	15,000	18,000	1.1%
VB	PLAZA TRAIL	HOLLAND RD	MARINA LAKES RD	0.24	11,538		8,857		11,100			10,409		10,445	10,445		11,284	10,728	12,000	14,000	1.2%
VB	PLAZA TRAIL	MARINA LAKES RD	ROSEMONT RD	1.41	11,538		8,857		11,100			10,409		10,445	10,445		11,284	10,728	12,000	11,000	0.1%
VB	PLAZA TRAIL	ROSEMONT RD	I-264	0.94	9,626		8,286		9,076						9,756	10,525	11,571	12,146	14,000	12,000	-0.1%
VB	PLAZA TRAIL	I-264	VA BEACH BLVD	0.17	9,626		8,286		9,076						9,756	10,525	11,571	12,146	14,000	9,000	-1.3%
VB	PRINCESS ANNE RD	NEWTOWN RD/NORFOLK CL	KEMPSVILLE RD	1.90	31,951		33,528		32,615			24,383		25,109	25,651	27,461	28,852	30,012	31,000	27,000	-0.5%
VB	PRINCESS ANNE RD	KEMPSVILLE RD	BAXTER RD	0.58									30,566	28,375	27,967	30,171	33,101	28,048	37,000	32,000	0.6%
VB	PRINCESS ANNE RD	BAXTER RD	PROVIDENCE RD	1.65	30,880		33,887		36,609					24,790	24,952	26,958	28,142	28,383	29,000	26,000	-0.4%
VB	PRINCESS ANNE RD	PROVIDENCE RD	FERRELL PKWY	0.76	28,144		27,423		27,814					32,426	34,507	33,889	36,270	35,500	37,000	41,000	0.6%
VB	PRINCESS ANNE RD	FERRELL PKWY	LYNNHAVEN PKWY	0.48	22,885		19,714		37,631			36,128		40,745	43,877	50,332		55,115	60,000	56,000	0.1%
VB	PRINCESS ANNE RD	LYNNHAVEN PKWY	INDEPENDENCE BLVD	0.44	22,885		19,714		37,631			36,128		40,745	43,877	44,981		55,115	60,000	49,000	-0.5%
VB	PRINCESS ANNE RD	INDEPENDENCE BLVD	DAM NECK RD	1.48	22,885		19,714		37,631			36,128		40,745	40,627	43,578			53,000	52,000	0.7%
VB	PRINCESS ANNE RD	DAM NECK RD	S.E. PARKWAY	1.09	14,860		14,560		15,049			0	21,315		21,452	25,107	23,724	23,737	27,000	29,000	0.9%
VB	PRINCESS ANNE RD	S.E. PARKWAY	NIMMO PKWY	1.24	14,860		14,560		15,049			0	21,315		21,452	25,107	23,724	23,737	27,000	26,000	0.4%
VB	PRINCESS ANNE RD	NIMMO PKWY	NORTH LANDING RD	0.55	14,860		14,560		15,049			0	21,315		21,452	25,107	23,724	15,500	11,000	2,000	-8.5%
VB	PRINCESS ANNE RD	NORTH LANDING RD	HOLLAND RD	0.27	18,896		20,959		19,094					20,785	21,422	22,416	24,907		16,000	8,000	-4.6%
VB	PRINCESS ANNE RD	HOLLAND RD	CROSSROAD RD	1.76	18,896		20,959		19,094			18,255		20,785	21,422	22,416	24,907	25,012	29,000	20,000	-1.0%
VB	PRINCESS ANNE RD	CROSSROAD RD	GENERAL BOOTH BLVD	0.24	18,896		20,959		19,094			18,255		20,785	21,422	22,416	24,907	25,012	29,000	8,000	-4.8%
VB	PRINCESS ANNE RD	GENERAL BOOTH BLVD	SANDBRIDGE RD/UPTON DR	0.85	17,079		17,860		19,329					17,059	15,646	16,944	10,164	12,635	8,000	14,000	0.4%
VB	PRINCESS ANNE RD	SANDBRIDGE RD/UPTON DR	SEABOARD RD	1.76	6,301		6,251		6,755					7,247	9,179	8,186		10,739	14,000	11,000	0.1%
VB	PRINCESS ANNE RD	SEABOARD RD	INDIAN RIVER RD	0.38	6,301		6,251		6,755					7,247	9,179	8,186		10,739	14,000	10,000	-0.3%
VB	PRINCESS ANNE RD	INDIAN RIVER RD	PUNGO FERRY RD	7.71	6,301		6,251		6,755					7,530	0	7,982	8,109	8,088	10,000	10,000	0.9%
VB	PRINCESS ANNE RD	PUNGO FERRY RD	NORTH CAROLINA STATE LINE	5.74			2,748							2,379	2,704	3,517	3,524	3,182	4,000	3,000	-0.3%
VB	PROVIDENCE RD	CHESAPEAKE CL	MILITARY HWY	0.08	13,366		0		13,030			14,340		14,395				13,580	14,000	16,000	0.7%
VB	PROVIDENCE RD	MILITARY HWY	INDIAN RIVER RD	0.72	16,000		15,689		17,495					18,662	17,232	18,554	18,702	18,233	19,000	21,000	0.6%
VB	PROVIDENCE RD	INDIAN RIVER RD	KEMPSVILLE RD	2.28	23,160		29,181		23,637			21,314		33,666	26,806	28,991	27,849	25,491	27,000	30,000	0.7%
VB	PROVIDENCE RD	KEMPSVILLE RD	PRINCESS ANNE RD	2.02	15,293		15,702		16,932					15,893	13,885	15,270	15,444	15,587	17,000	28,000	2.6%
VB	PUNGO FERRY RD	BLACKWATER RD	PRINCESS ANNE RD	2.73										2,247	2,043	2,526	2,619	2,843	3,000	2,000	-1.5%
VB	ROSEMONT RD	DAM NECK RD	FACULTY DRIVE	0.93									9,048		9,666	10,080	10,346	10,004	11,000	10,000	0.0%
VB	ROSEMONT RD	FACULTY DRIVE	LYNNHAVEN PKWY	0.58			19,688							14,448	15,183	17,196	18,452	17,613	19,000	16,000	-0.4%
VB	ROSEMONT RD	LYNNHAVEN PKWY	HOLLAND RD	1.25										20,152	20,805	20,512	21,972	23,334	25,000	25,000	0.3%
VB	ROSEMONT RD	HOLLAND RD	PLAZA TRAIL	1.16	25,938		37,901		29,007			31,693	31,582		30,406	32,936	34,280	33,928	35,000	44,000	1.1%
VB	ROSEMONT RD	PLAZA TRAIL	I-264	0.61	29,665		33,173		31,533			31,000		35,405	35,433	35,164	32,719	35,296	36,000	54,000	1.9%

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VB	ROSEMONT RD	I-264	VA BEACH BLVD	0.14														56,000	59,000	78,000	1.5%
VB	SALEM RD	NORTH LANDING RD	ELBOW RD	2.60			4,248		3,702						3,701	4,466	6,923	5,411	7,000	7,000	1.1%
VB	SALEM RD	ELBOW RD	INDEPENDENCE BLVD	0.90			7,470		7,166			7,157		8,177	8,871	9,096	11,102	9,624	10,000	17,000	2.5%
VB	SALEM RD	INDEPENDENCE BLVD	LYNNHAVEN PKWY	0.60			7,470		7,166			7,157		8,177	8,871	9,096	11,102	9,624	10,000	14,000	1.6%
VB	SALEM RD	LYNNHAVEN PKWY	PRINCESS ANNE RD	0.73			10,286		8,462				9,897		10,060	10,752		13,500	14,000	10,000	-1.3%
VB	SANDBRIDGE RD	PRINCESS ANNE RD	LOTUS DR	1.55	9,787		9,521		9,157					11,340	9,835	9,032	9,496	10,205	12,000	6,000	-2.3%
VB	SANDBRIDGE RD	LOTUS DR	SANDPIPER DR	3.18										8,580		6,277	7,062	6,822	9,000	4,000	-2.3%
VB	SEABOARD RD	PRINCESS ANNE RD (AT PA ELEMENTARY)	PRINCESS ANNE RD (AT PUNGO FIELD)	2.42										1,696	1,960	2,108	2,418	2,719	4,000	5,000	2.7%
VB	SEABOARD RD EXTENDED	NIMMO PKWY	PRINCESS ANNE RD (AT PA ELEMENTARY)	0.59														DNE		8,000	-
VB	SHORE DRIVE	NORFOLK CL	DIAMOND SPRINGS RD	0.21	36,216		43,423		37,262			38,100	34,169	33,770	30,230	32,575	32,570	34,891	37,000	35,000	0.0%
VB	SHORE DRIVE	DIAMOND SPRINGS RD	INDEPENDENCE BLVD	1.82	28,227		31,526		32,763			29,070	27,280	28,351	28,724	26,103	25,997	28,862	30,000	31,000	0.3%
VB	SHORE DRIVE	INDEPENDENCE BLVD	NORTHAMPTON BLVD	1.01	18,643		23,578		22,472			19,694		20,157	18,663	20,066	20,138	20,441	21,000	22,000	0.3%
VB	SHORE DRIVE	NORTHAMPTON BLVD	N GREAT NECK RD	3.47	41,912		43,451		43,151			46,050	40,850	39,118	45,695	40,068	42,729	41,252	44,000	42,000	0.1%
VB	SHORE DRIVE	N GREAT NECK RD	ATLANTIC AVE	4.61	16,117		16,211		14,863			16,687		16,361	14,550	19,704	15,859	15,206	17,000	12,000	-1.0%
VB	SOUTHERN BLVD	FIRST COLONIAL RD	OCEANA BLVD	0.47			8,473		9,901			8,537		11,395	12,811	11,922					-
VB	UPTON DR	NIMMO PKWY	PRINCESS ANNE RD	0.72													11,384	12,635	15,000	7,000	-2.5%
VB	VA BEACH BLVD	NEWTOWN RD/NORFOLK CL	WITCHDUCK RD	1.26			43,458		50,963			42,929	37,853	42,212	42,678	43,779	41,061	46,111	50,000	52,000	0.5%
VB	VA BEACH BLVD	WITCHDUCK RD	INDEPENDENCE BLVD	1.12	31,838		42,434		44,155			41,000		37,511	38,031	39,363		36,500	43,000	50,000	1.4%
VB	VA BEACH BLVD	INDEPENDENCE BLVD	ROSEMONT RD	2.22	49,804		60,870		55,963			49,000		50,568	51,138	50,669	50,088	49,607	55,000	65,000	1.2%
VB	VA BEACH BLVD	ROSEMONT RD	S. PLAZA TRAIL/LITTLE NECK RD	0.39	48,488		58,354		60,674			0		59,176	56,642			58,071	60,000	60,000	0.1%
VB	VA BEACH BLVD	S. PLAZA TRAIL/LITTLE NECK RD	LYNNHAVEN PKWY	1.61	37,887		46,719		63,141			43,487		42,158	43,907	45,195	42,702	41,264	45,000	60,000	1.6%
VB	VA BEACH BLVD	LYNNHAVEN PKWY	GREAT NECK RD	0.83	45,722		56,031		58,674			56,000		54,052	56,059	55,235	57,043	60,903	62,000	61,000	0.0%
VB	VA BEACH BLVD	GREAT NECK RD	LASKIN RD	0.14	34,537		42,583		41,009						32,923		28,588	27,612	30,000	35,000	1.0%
VB	VA BEACH BLVD	LASKIN RD	FIRST COLONIAL RD	1.04	24,640		29,365		27,248			29,400		26,277	29,019	29,646	27,075	28,989	29,000	25,000	-0.6%
VB	VA BEACH BLVD	FIRST COLONIAL RD	OLD OCEANA BLVD	0.45	31,418		36,368		35,391			34,787		26,801	31,820			22,756	23,000	19,000	-0.8%
VB	VA BEACH BLVD	OLD OCEANA BLVD	BIRDNECK RD	0.96	17,367		19,229		19,972			16,900		15,287	14,965	15,349		15,026	17,000	20,000	1.3%
VB	VA BEACH BLVD	BIRDNECK RD	PACIFIC AVE	1.18	14,457		15,717		16,037			13,027		12,931	12,447	13,047	12,447	14,239	15,000	13,000	-0.4%
VB	VA BEACH BLVD	PACIFIC AVE	ATLANTIC AVE	0.07	14,457		15,717		16,037			13,027		12,931	12,447	13,047	12,447	14,239	15,000	6,000	-3.7%
VB	WESLEYAN DR	NORFOLK CL	BAKER RD	0.43	19,047		18,930		19,348					18,584	18,558		20,547	20,419	21,000	35,000	2.4%
VB	WESLEYAN DR	BAKER RD	DIAMOND SPRINGS RD	0.54			14,593		14,765			13,327			14,090	14,982	15,372	15,362	17,000	26,000	2.3%
VB	WESLEYAN DR	DIAMOND SPRINGS RD	HAYGOOD DR	1.18			21,983		22,601					20,534	18,846	19,598	19,683	18,340	19,000	21,000	0.6%
VB	WEST NECK PKWY	DAM NECK RD/ELBOW RD	NIMMO PKWY	2.50														DNE		11,000	-
VB	WEST NECK PKWY	NIMMO PKWY	NORTH LANDING RD	0.30														DNE		13,000	-
VB	WEST NECK PKWY	NORTH LANDING RD	INDIAN RIVER RD	1.25														DNE		21,000	-
VB	WEST NECK RD	NIMMO PKWY	NORTH LANDING RD	0.19														8,000	9,000	1,000	-8.6%
VB	WEST NECK RD	NORTH LANDING RD	INDIAN RIVER RD	2.05										2,795	2,157	2,603	0	2,619	4,000	1,000	-4.1%
VB	WITCHDUCK RD	PRINCESS ANNE RD	I-264	0.78	29,735		36,680		30,799					29,752	29,938	30,127	30,667	29,985	32,000	48,000	2.1%
VB	WITCHDUCK RD	I-264	VA BEACH BLVD	0.51	31,140		33,812		35,266			40,072			45,729	45,489	44,495	45,265	48,000	56,000	0.9%
VB	WITCHDUCK RD	VA BEACH BLVD	PEMBROKE BLVD	1.58	19,606		19,757		26,487					20,378	21,144	18,410	20,435	19,676	21,000	24,000	0.9%
WMB	BYPASS RD	RICHMOND RD	YORK CL	0.11	24,693		24,034		28,163				21,179			28,684			30,000	34,000	0.7%

AGR - Annual Growth Rate

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Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
WMB	BYPASS RD	YORK CL	PAGE ST	0.66	16,867		16,598		17,287				12,302		17,842	20,073			21,000	22,000	0.4%
WMB	CAPITOL LANDING RD	BYPASS RD	MERRIMAC TRAIL	0.62	7,636		7,242		6,420				7,480			8,391			9,000	11,000	1.1%
WMB	COLONIAL NATL HIST PKWY	JAMES CITY CL	YORK CL	3.09					3,810			3,800				5,881			7,000	9,000	1.7%
WMB	IRONBOUND RD	JAMES CITY CL	LONGHILL CONNECTOR RD	0.18	8,634		8,692		16,983				16,514	17,581	9,801	9,153	10,498	10,574	12,000	10,000	-0.2%
WMB	IRONBOUND RD	LONGHILL CONNECTOR RD	RICHMOND RD	0.66	8,634		8,692		9,112						13,723	12,335			14,000	16,000	1.0%
WMB	JAMESTOWN RD	JAMES CITY CL	RTE 199	0.06	16,600		11,571		15,407				15,605	16,426	15,888	18,080	18,703	15,466	19,000	23,000	1.7%
WMB	JAMESTOWN RD	RTE 199	JOHN TYLER LA	0.27			7,452		8,167				12,568			10,315			12,000	13,000	0.9%
WMB	JAMESTOWN RD	JOHN TYLER LA	COLLEGE CREEK	0.58			7,452		8,167				12,053			11,709			12,000	13,000	0.4%
WMB	JAMESTOWN RD	COLLEGE CREEK	BOUNDARY ST	0.92			7,452		10,567				12,053			11,709			12,000	13,000	0.4%
WMB	LAFAYETTE ST	RICHMOND RD	HENRY ST	0.95	11,336		11,291		11,159				10,896			12,172			13,000	12,000	-0.1%
WMB	LAFAYETTE ST	HENRY ST	CAPITOL LANDING RD	0.85	13,190		12,452		12,364				10,896			12,425			13,000	14,000	0.5%
WMB	LAFAYETTE ST	CAPITOL LANDING RD	PAGE ST	0.21	10,736		10,724		10,258				10,896			10,511			11,000	7,000	-1.6%
WMB	MERRIMAC TRAIL	YORK CL (SOUTH)	CAPITOL LANDING RD	0.90	16,723		18,461		17,316				7,055			6,329			8,000	10,000	1.8%
WMB	MERRIMAC TRAIL	CAPITOL LANDING RD	YORK CL (NORTH)	0.37	7,586		7,545		7,027				8,240			9,112			10,000	11,000	0.8%
WMB	MONTICELLO AVE	IRONBOUND RD	RICHMOND RD	1.17	11,742		11,901		12,604							13,944			15,000	22,000	1.8%
WMB	N. HENRY ST	LAFAYETTE ST	RTE 132Y	0.44	8,367		8,567		7,411				8,935			8,022			8,000	6,000	-1.2%
WMB	PAGE ST	BYPASS RD	SECOND ST	0.31	18,636		19,532		19,236				16,039			20,971			22,000	26,000	0.9%
WMB	PAGE ST	SECOND ST	YORK ST	0.25	18,636		19,532		19,236				16,039			20,750			21,000	22,000	0.2%
WMB	QUARTERPATH RD	ROUTE 199	YORK ST	1.44			1,184		1,182							1,473			3,000	6,000	5.8%
WMB	RICHMOND RD	JAMES CITY CL	IRONBOUND RD	1.34			29,150		30,688				28,445			22,401			23,000	27,000	0.7%
WMB	RICHMOND RD	IRONBOUND RD	BYPASS RD	0.33	34,730		36,451		38,042				30,116		31,789	32,730			34,000	37,000	0.5%
WMB	RICHMOND RD	BYPASS RD	MONTICELLO AVE	0.37	22,486		23,114		24,216							22,306		20,168	24,000	31,000	1.9%
WMB	RICHMOND RD	MONTICELLO AVE	BROOKS ST	0.38	12,768		13,476		13,342							13,180		13,304	14,000	17,000	1.1%
WMB	RICHMOND RD	BROOKS ST	BOUNDARY ST	0.67	12,768		13,476		13,342							13,180		13,304	14,000	11,000	-0.8%
WMB	ROUTE 132	ROUTE 132Y	YORK CL	0.16	13,821		12,692		11,300							12,423			13,000	10,000	-0.9%
WMB	ROUTE 132Y	COLONIAL PKWY	ROUTE 132	0.30	11,184		10,903		9,458							7,629			8,000	5,000	-1.7%
WMB	ROUTE 199	JAMES CITY CL (WEST)	JAMESTOWN RD	0.24			18,517		19,326			20,494			27,780	29,427			31,000	41,000	1.3%
WMB	ROUTE 199	JAMESTOWN RD	JAMES CITY CL (EAST)	0.16			19,600		19,326			21,725				29,353			33,000	43,000	1.5%
WMB	SECOND ST	PAGE ST	YORK CL	0.41	16,045		18,078		17,559				16,344			17,976			19,000	20,000	0.4%
WMB	YORK ST	PAGE ST	JAMES CITY CL	0.60	19,338		20,073		18,227				14,555			17,894			20,000	18,000	0.0%
YC	BALLARD ST	COLONIAL PKWY	COOK RD	0.11														3,000	3,000	7,000	3.8%
YC	BIG BETHEL RD	HAMPTON CL	HAMPTON HWY (RTE 134)	0.96			8,600		10,474				10,372			11,090			12,000	15,000	1.2%
YC	BIG BETHEL RD	HAMPTON HWY (RTE 134)	VICTORY BLVD (RTE 171)	1.09			4,960		4,773				4,400			4,804			5,000	9,000	2.5%
YC	BYPASS RD	WILLIAMSBURG CL	WALLER MILL RD	0.19			21,533		24,389				21,179			28,684			30,000	34,000	0.7%
YC	BYPASS RD	WALLER MILL RD	ROUTE 132	0.88			21,533		24,389				21,179			28,684			30,000	34,000	0.7%
YC	BYPASS RD	ROUTE 132	WILLIAMSBURG CL	0.05	16,867		16,598		17,287				12,302		17,842	20,073			21,000	23,000	0.5%
YC	COLONIAL NATL HIST PKWY	WILLIAMSBURG CL	MOORE HOUSE RD	11.21			3,917		3,750			3,800				2,812			4,000	4,000	1.4%
YC	COOK RD	GOOSLEY RD	MOORE HOUSE RD	0.25			5,760		6,832			8,800						6,000	6,000	8,000	1.3%
YC	DENBIGH BLVD	NEWPORT NEWS CL	ROUTE 17	2.18			13,275		12,904				14,217	14,520	15,865	15,388		15,857	17,000	18,000	0.6%
YC	EAST YORKTOWN RD	VICTORY BLVD	POQUOSON CL	0.29			3,424		3,521									4,000	5,000	12,000	4.9%

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Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
YC	FORT EUSTIS BLVD	NEWPORT NEWS CL	ROUTE 17	2.36	13,364	13,400	13,400		14,936			12,709	14,969	14,509	16,300	16,606			18,000	22,000	1.1%
YC	GEORGE WASHINGTON HWY	NEWPORT NEWS CL	VICTORY BLVD (RTE 171)	1.20			33,853		31,231			32,845	33,777	33,521	35,179	32,720			35,000	43,000	1.1%
YC	GEORGE WASHINGTON HWY	VICTORY BLVD (RTE 171)	HAMPTON HWY (RTE 134)	0.64			29,984	28,900	33,336									38,000	41,000	37,000	-0.1%
YC	GEORGE WASHINGTON HWY	HAMPTON HWY (RTE 134)	DENBIGH BLVD (RTE 173)	3.45			46,671		51,238					50,197	55,594	53,843	55,698	55,511	57,000	70,000	1.0%
YC	GEORGE WASHINGTON HWY	DENBIGH BLVD (RTE 173)	FORT EUSTIS BLVD (RTE 105)	1.38			33,800	36,200	36,131					32,150		35,184			38,000	41,000	0.6%
YC	GEORGE WASHINGTON HWY	FORT EUSTIS BLVD (RTE 105)	GOOSLEY RD (RTE 238)	2.97			36,500		36,438					35,400		39,068			42,000	41,000	0.2%
YC	GEORGE WASHINGTON HWY	GOOSLEY RD (RTE 238)	GLOUCESTER CL (COLEMAN BRIDGE)	1.06	25,283		26,350		24,004						27,770	38,019			42,000	43,000	0.5%
YC	GOODWIN NECK RD	ROUTE 17	WOLF TRAP RD	1.05			10,377		10,617				10,196			10,095			10,000	11,000	0.3%
YC	GOOSLEY RD	OLD WILLIAMSBURG RD	CRAWFORD RD	0.89			5,460		5,360			6,600				6,359			7,000	7,000	0.4%
YC	GOOSLEY RD	CRAWFORD RD	ROUTE 17	0.30			5,460		6,269			6,700				6,359			7,000	10,000	1.8%
YC	GOOSLEY RD	ROUTE 17	COOK RD	0.52			1,280		2,003									3,000	3,000	2,000	-1.7%
YC	HAMPTON HWY	ROUTE 17	VICTORY BLVD (RTE 171)	0.72			19,700		19,236				24,408			26,202			28,000	33,000	0.9%
YC	HAMPTON HWY	VICTORY BLVD (RTE 171)	BIG BETHEL RD (RTE 600)	1.54			25,000		28,307				24,408		28,831	25,086			27,000	31,000	0.9%
YC	HAMPTON HWY	BIG BETHEL RD (RTE 600)	NCL HAMPTON	1.77	22,630		28,100		26,824			25,822		24,233		25,831			28,000	29,000	0.5%
YC	MERRIMAC TRAIL	JAMES CITY CL	GROVE INTERCHANGE	0.66			8,251		9,094			10,500				11,382			14,000	7,000	-1.9%
YC	MERRIMAC TRAIL	GROVE INTERCHANGE	ROUTE 199	1.75			15,046		15,270			16,000				16,453			18,000	16,000	-0.1%
YC	MERRIMAC TRAIL	ROUTE 199	JAMES CITY CL (NORTH OF 199)	0.09			15,745		16,466			16,000				19,332			22,000	36,000	2.5%
YC	MERRIMAC TRAIL	JAMES CITY CL (PENNIMAN RD)	SECOND ST	0.50			15,745		16,466									23,000	24,000	25,000	0.4%
YC	MERRIMAC TRAIL	SECOND ST	SCL WILLIAMSBURG	0.26												7,172			8,000	10,000	1.3%
YC	MERRIMAC TRAIL	NCL WILLIAMSBURG	ROUTE 132	0.22									7,055			8,692			10,000	11,000	0.9%
YC	MERRIMAC TRAIL	ROUTE 132	I-64	0.60			18,500		12,787							18,433			19,000	20,000	0.3%
YC	MOORETOWN RD	ROUTE 199	OLD MOORETOWN RD	0.95									2,410					4,000	5,000	10,000	4.1%
YC	MOORETOWN RD	OLD MOORETOWN RD	WALLER MILL RD	3.50									2,410			4,163			5,000	7,000	2.1%
YC	NEWMAN RD	I-64	FENTON MILL RD	0.46			5,503		4,527							2,955			5,000	14,000	6.4%
YC	OLD WILLIAMSBURG RD	NECL NEWPORT NEWS	GOOSLEY RD	2.20			9,230		8,606				9,094	8,686	10,184	10,008	9,687	9,957	12,000	16,000	2.1%
YC	PENNIMAN RD (RTE 641)	ROUTE 199	COLONIAL PKWY	1.19					2,200				3,535	3,807	4,551		4,600	4,444	6,000	6,000	1.3%
YC	POCAHONTAS TRAIL	JCC LINE @ RTE 199	KINGSMILL RD	0.66				18,000								25,655			28,000	24,000	-0.3%
YC	POCAHONTAS TRAIL	KINGSMILL RD	GROVE INTERCHANGE	1.16				18,000					14,329		14,646	15,054			16,000	14,000	-0.3%
YC	POCAHONTAS TRAIL	GROVE INTERCHANGE	JAMES CITY CL	0.71												12,492			13,000	14,000	0.5%
YC	RICHNECK RD	NEWPORT NEWS CL	FORT EUSTIS BLVD	0.90									1,564			1,761			3,000	3,000	2.2%
YC	ROUTE 132	WILLIAMSBURG CL	ROUTE 60	0.10			10,500		9,458							12,423			13,000	10,000	-0.9%
YC	ROUTE 132	ROUTE 60	ROUTE 143	1.16			10,500		11,108				9,627			11,584			12,000	10,000	-0.6%
YC	ROUTE 199	RTE 60/RTE 143/JCC LINE	I-64	1.00			25,400		27,321				25,966	23,515	17,907	25,034	25,463	25,617	26,000	49,000	2.9%
YC	ROUTE 199	I-64	RTE 641 (PENNIMAN RD)	0.90			4,920		4,895							14,916			18,000	21,000	1.4%
YC	ROUTE 1050 (FT EUSTIS BLVD EXT)	ROUTE 17	OLD YORK - HAMPTON HWY	0.38											DNE			DNE	5,000	12,000	-
YC	SECOND ST	ECL WMSBG	MERRIMAC TRAIL	0.17									18,844			17,978			19,000	20,000	0.4%
YC	VICTORY BLVD	NEWPORT N CL	ROUTE 17	0.85			24,500		33,257			35,968	38,324	43,290	44,986	45,257			49,000	62,000	1.3%
YC	VICTORY BLVD	ROUTE 17	HAMPTON HWY (RTE 134)	0.35			24,500		33,257						36,300				39,000	33,000	-0.4%
YC	VICTORY BLVD	HAMPTON HWY (RTE 134)	BIG BETHEL RD (RTE 600)	1.02			14,500		15,344						19,746	18,575			21,000	18,000	-0.1%
YC	VICTORY BLVD	BIG BETHEL RD (RTE 600)	CARYS CHAPEL RD (RTE 782)	1.25			14,700		16,498						19,746	18,575			21,000	26,000	1.4%

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Appendix B: CMS Historical and Future Traffic Volumes – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	Average Daily Traffic (ADT)														Projected ADT		Average AGR (2003 Existing to 2026)
					1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2008	2026	
YC	VICTORY BLVD	CARYS CHAPEL RD (RTE 782)	POQUOSON CL	0.23			9,640		10,870				12,184			12,741			14,000	18,000	1.4%
YC	WALLER MILL RD	ROUTE 60	MOORETOWN RD	0.18									5,601			5,801			7,000	15,000	3.9%

*Note: Some 2026 roadway volumes have been updated based on study projections from regional projects.

Traffic Data Sources: Virginia Department of Transportation and Hampton Roads Jurisdictions

APPENDIX C

CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – Interstates and Freeways/Expressways

Appendix C: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **INTERSTATES AND FREEWAYS/EXPRESSWAYS**

Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	'01-'03 Existing ADT (One-way)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
															AM	PM	AM	PM	
CHES	I-64	VA BEACH CL	GREENBRIER PKWY	EB	1.30	61,479	128,511	2003	142,000	119,000	3+1	3+1	3+1	3+1	C	D	D	E	Moderate
CHES				WB		67,032		2003			3+1	3+1	3+1	3+1	D	C	E	D	
CHES	I-64	GREENBRIER PKWY	BATTLEFIELD BLVD	EB	1.42	62,734	129,554	2003	143,000	111,000	3+1	3+1	3+1	3+1	C	D	C	E	Moderate
CHES				WB		66,820		2003			3+1	3+1	3+1	3+1	E	C	F	D	
CHES	I-64	BATTLEFIELD BLVD	I-464	EB	1.08	55,562	116,723	2003	129,000	117,000	3	3	**3+1**	3+1	C	D	C	D	Moderate
CHES				WB		61,161		2003			3	3	**3+1**	3+1	E	D	E	D	
CHES	I-64	I-464	GEORGE WASHINGTON HWY	EB	4.38	43,308	87,988	2003	102,000	95,000	2	2	2	2	E	F	F	F	**Severe**
CHES				WB		44,680		2003			2	2	2	2	F	E	F	F	
CHES	I-64	GEORGE WASHINGTON HWY	MILITARY HWY	EB	1.53	37,599	73,421	2003	85,000	90,000	2	2	2	2	D	D	E	E	**Severe**
CHES				WB		35,822		2003			2	2	2	2	D	D	E	E	
CHES	I-64	MILITARY HWY	I-264&664	EB	2.31	35,768	72,104	2003	84,000	97,000	2	2	2	2	D	D	D	E	**Severe**
CHES				WB		36,336		2003			2	2	2	2	E	D	F	E	
CHES	I-264	I-64&664	WCL PORTSMOUTH	EB	1.23	25,319	50,806	2003	59,000	53,000	2	2	2	2	D	B	E	C	Moderate
CHES				WB		25,487		2003			2	2	2	2	B	D	B	E	
CHES	I-464	I-64	MILITARY HWY	NB	1.00	29,649	53,286	2003	62,000	80,000	3	3	3	3	C	B	D	B	Moderate
CHES				SB		23,637		2003			3	3	3	3	A	B	A	C	
CHES	I-464	MILITARY HWY	FREEMAN AVE	NB	0.97	27,330	49,694	2003	55,000	77,000	3	3	3	3	C	A	C	A	Moderate
CHES				SB		22,364		2003			3	3	3	3	A	B	A	B	
CHES	I-464	FREEMAN AVE	POINDEXTER ST	NB	1.90	25,609	48,210	2003	53,000	70,000	3	3	3	3	C	A	C	A	Low to Moderate
CHES				SB		22,601		2003			3	3	3	3	A	B	A	C	
CHES	I-464	POINDEXTER ST	NORFOLK CL	NB	0.72	27,273	50,253	2003	58,000	64,000	2	2	2	2	D	B	E	B	Moderate
CHES				SB		22,980		2003			2	2	2	2	A	C	A	D	
CHES	I-664	I-64 & I-264	RTE 13 58 460	EB	1.70	52,059	110,542	2003	122,000	138,000	4	4	4	4	C	B	D	C	Moderate
CHES				WB		58,483		2003			4	4	4	4	B	C	C	C	
CHES	I-664	RTE 13 58 460	DOCK LANDING RD	EB	1.25	38,721	78,625	2003	87,000	89,000	2	2	2	2	F	E	F	F	**Severe**
CHES				WB		39,904		2003			2	2	2	2	D	E	D	F	
CHES	I-664	DOCK LANDING RD	PORTSMOUTH BLVD	EB	1.14	36,283	73,215	2003	85,000	88,000	2	2	2	2	E	E	F	F	**Severe**
CHES				WB		36,932		2003			2	2	2	2	D	D	D	F	
CHES	I-664	PORTSMOUTH BLVD	PUGHSVILLE RD	EB	2.06	36,099	72,407	2003	84,000	84,000	2	2	2	2	D	E	E	F	**Severe**
CHES				WB		36,308		2003			2	2	2	2	D	D	D	E	
CHES	I-664	PUGHSVILLE RD	SUFFOLK CL	EB	0.83	33,821	67,642	2003	78,000	83,000	3	3	3	3	B	D	B	D	**Severe**
CHES				WB		33,821		2003			3	3	3	3	C	C	C	C	
CHES	CHESAPEAKE EXPWY	GALLBUSH RD	BATTLEFIELD BLVD (NEAR INDIAN CREEK)	NB	2.61		11,012	2002	13,000	11,000	0	**2**	2	2	A	A	A	A	Low to Moderate
CHES				SB				2002			0	**2**	2	2	A	A	A	A	
CHES	CHESAPEAKE EXPWY	BATTLEFIELD BLVD (NEAR INDIAN CREEK)	HILLCREST PKWY	NB	2.63		11,012	2002	13,000	14,000	0	**2**	2	2	A	A	A	A	Low to Moderate
CHES				SB				2002			0	**2**	2	2	A	A	A	A	
CHES	CHESAPEAKE EXPWY	HILLCREST PKWY	BATTLEFIELD BLVD (S OF GREAT BRIDGE)	NB	2.21	9,492	19,529	2003	24,000	45,000	0	**2**	2	2	B	A	B	A	Low to Moderate
CHES				SB		10,037		2003			0	**2**	2	2	A	B	A	B	
CHES	CHESAPEAKE EXPWY (GBB)	BATTLEFIELD BLVD (S OF GREAT BRIDGE)	HANBURY RD	NB	0.59	9,075	17,546	2002	21,000	44,000	2	2	2	2	A	A	B	A	Low to Moderate
CHES				SB		8,471		2002			2	2	2	2	A	A	A	B	
CHES	CHESAPEAKE EXPWY (GBB)	HANBURY RD	MT PLEASANT RD	NB	1.31	17,459	33,481	2002	41,000	39,000	2	2	2	2	D	A	D	B	Low to Moderate
CHES				SB		16,022		2002			2	2	2	2	A	C	B	C	
CHES	CHESAPEAKE EXPWY (GBB)	MT PLEASANT RD	BATTLEFIELD BLVD (N OF GREAT BRIDGE)	NB	2.31	28,463	56,403	2002	63,000	88,000	2	2	2	2	D	B	E	C	**Severe**
CHES				SB		27,940		2002			2	2	2	2	A	E	B	F	
CHES	CHESAPEAKE EXPWY (OGC)	BATTLEFIELD BLVD (N OF GREAT BRIDGE)	DOMINION BLVD	NB	1.90	28,025	55,285	2002	64,000	126,400	2	2	2	**3+1**	D	C	E	C	Moderate
CHES				SB		27,260		2002			2	2	2	**3+1**	B	D	B	E	
CHES	CHESAPEAKE EXPWY (OGC)	DOMINION BLVD	I-64	NB	0.57	21,974	55,027	2003	64,000	136,000	3	3	3	**3+1**	D	A	D	A	**Severe**
CHES				SB		33,053		2003			3	3	3	**3+1**	A	D	A	E	

Appendix C: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **INTERSTATES AND FREEWAYS/EXPRESSWAYS**

Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	'01-'03 Existing ADT (One-way)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS AM	2003 Existing LOS PM	2008 LOS AM	2008 LOS PM	Adjusted* 2026 Congestion Level (PM Peak Hour)
CHES	MILITARY HWY	SUFFOLK CL	I-664	EB	2.50	32,336	64,793	2003	72,000	87,000	3	3	3	3	C	B	C	B	Moderate
CHES				WB		32,457		2003			3	3	3	3	B	C	B	C	
CHES	SE EXPWY	BATTLEFIELD BLVD	CENTERVILLE TURNPIKE	EB	3.09	DNE	DNE	2003		70,000	0	0	0	2+1	-	-	-	-	Moderate
CHES				WB		DNE		2003			0	0	0	2+1	-	-	-	-	
CHES	SE EXPWY	CENTERVILLE TNPK	VA BEACH CL	EB	3.41	DNE	DNE	2003		75,700	0	0	0	2+1	-	-	-	-	Moderate
CHES				WB		DNE		2003			0	0	0	2+1	-	-	-	-	
HAM	I-64	NEWPORT NEWS CL	HRC PARKWAY	EB	2.24	74,361	145,972	2001	168,000	185,000	3	3+1	3+1	3+1	E	D	F	E	Severe
HAM				WB		71,611		2001			3	3+1	3+1	3+1	D	D	E	E	
HAM	I-64	HRC PARKWAY	MAGRUDER BLVD	EB	0.77	65,819	122,792	2001	141,000	163,000	3	3	3+1	3+1	F	E	D	D	Severe
HAM				WB		56,973		2001			3	3	3+1	3+1	D	D	C	C	
HAM	I-64	MAGRUDER BLVD	MERCURY BLVD	EB	1.04	74,144	142,540	2001	164,000	187,000	3	3	3+1	3+1	F	E	F	D	Severe
HAM				WB		68,396		2001			3	3	3+1	3+1	F	D	E	D	
HAM	I-64	MERCURY BLVD	I-664	EB	0.96	69,546	137,942	2001	153,000	175,000	4	4	4+1	4+1	E	D	D	C	Severe
HAM				WB		68,396		2001			4	4	4+1	4+1	D	D	C	C	
HAM	I-64	I-664	ARMISTEAD AVE	EB	0.88	62,611	119,153	2001	137,000	137,000	3	3	3	3	D	D	E	E	Severe
HAM				WB		56,542		2001			3	3	3	3	C	D	D	D	
HAM	I-64	ARMISTEAD AVE	RIP RAP RD	EB	0.46	53,603	97,807	2001	112,000	122,000	3	3	3	3	D	D	D	D	Severe
HAM				WB		44,204		2001			3	3	3	3	C	C	C	C	
HAM	I-64	RIP RAP RD	KING ST	EB	0.33	53,603	97,807	2001	112,000	118,000	3	3	3	3	D	D	D	D	Severe
HAM				WB		44,204		2001			3	3	3	3	C	C	C	C	
HAM	I-64	KING ST	SETTLERS LANDING RD	EB	1.22	53,603	97,807	2001	112,000	118,000	3	3	3	3	D	D	D	D	Severe
HAM				WB		44,204		2001			3	3	3	3	C	C	C	C	
HAM	I-64	SETTLERS LANDING RD	MALLORY ST	EB	0.54	52,599	97,619	2001	112,000	119,000	3	3	3	3	D	C	E	D	Severe
HAM				WB		45,020		2001			3	3	3	3	C	C	C	C	
HAM	I-64/HRBT	MALLORY ST	NORFOLK CL	EB	3.69	46,288	91,225	2003	101,000	107,000	2	2	2	2	F	F	F	F	Severe
HAM				WB		44,937		2003			2	2	2	2	E	F	F	F	
HAM	I-664	NEWPORT NEWS CL	ABERDEEN RD	EB	0.44	35,752	71,197	2001	88,000	92,000	3	3	3	3	D	B	D	C	Moderate
HAM				WB		35,445		2001			3	3	3	3	B	D	C	D	
HAM	I-664	ABERDEEN RD	POWHATAN PKWY	EB	1.29	38,401	76,834	2001	95,000	96,000	3	3	3	3	D	B	D	C	Severe
HAM				WB		38,433		2001			3	3	3	3	B	D	C	E	
HAM	I-664	POWHATAN PKWY	I-64	EB	1.38	39,511	71,693	2001	88,000	92,000	3	3	3	3	C	C	D	C	Moderate
HAM				WB		32,182		2001			3	3	3	3	B	C	B	D	
IW	ROUTE 460 RELOCATED	SOUTHAMPTON CL	ROUTE 258	EB	6.18	DNE	DNE			27,800	0	0	0	2	-	-	-	-	Low to Moderate
IW				WB		DNE					0	0	0	2	-	-	-	-	
IW	ROUTE 460 RELOCATED	ROUTE 258	SUFFOLK CL	EB	3.56	DNE	DNE			42,900	0	0	0	2	-	-	-	-	Low to Moderate
IW				WB		DNE					0	0	0	2	-	-	-	-	
JCC	I-64	NEW KENT CL	RTE 30	EB	2.69	21,479	44,192	2001	58,000	65,000	2	2	2	2	A	B	B	C	Moderate
JCC				WB		22,713		2001			2	2	2	2	B	B	B	C	
JCC	I-64	RTE 30	CROAKER RD (RTE 607)	EB	4.34	21,628	40,750	2001	54,000	70,000	2	2	2	2	B	B	B	C	Moderate
JCC				WB		19,122		2001			2	2	2	2	B	A	B	B	
JCC	I-64	CROAKER RD (RTE 607)	YORK CL	EB	1.67	24,627	51,917	2001	68,000	87,000	2	2	2	2	B	B	B	C	Severe
JCC				WB		27,290		2001			2	2	2	2	B	C	C	C	
JCC	I-64	YORK CL	NEWPORT NEWS CL	EB	2.38	36,132	78,634	2001	97,000	119,000	2	2	2	3+1	C	D	D	F	Moderate
JCC				WB		42,502		2001			2	2	2	3+1	D	C	F	D	
JCC	RTE 199	YORK CL	RICHMOND RD (RTE 60)	EB	0.16	7,183	15,000	2001	18,000	25,000	2	2	2	2	A	A	A	A	Low to Moderate
JCC				WB		7,817		2001			2	2	2	2	A	A	A	A	
JCC	RTE 199	RICHMOND RD (RTE 60)	LONGHILL RD (RTE 612)	EB	2.94	7,460	14,863	2001	18,000	24,000	2	2	2	2	A	A	A	A	Low to Moderate
JCC				WB		7,403		2001			2	2	2	2	A	A	A	A	

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Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	'01-'03 Existing ADT (One-way)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
															AM	PM	AM	PM	
JCC	RTE 199	LONGHILL RD (RTE 612)	MONTICELLO AVE (RTE 321)	EB	1.89	9,943	20,000	2001	23,000	25,000	2	2	2	2	A	A	A	A	Low to Moderate
JCC				WB		10,057		2001			2	2	2	2	A	A	A	B	
JCC	RTE 199	MONTICELLO AVE (RTE 321)	JOHN TYLER HWY (RTE 5)	EB	1.30	9,168	18,891	2001	24,000	31,000	2	2	2	2	A	A	A	A	Moderate
JCC				WB		9,723		2001			2	2	2	2	A	A	A	A	
NN	I-64	JAMES CITY CL	RTE 143 (NORTH)	EB	0.27	36,132	78,634	2001	97,000	119,000	2	2	2	3+1	C	D	D	F	Moderate
NN				WB		42,502		2001			2	2	2	3+1	D	C	F	D	
NN	I-64	RTE 143 (NORTH)	YORKTOWN RD	EB	0.88	36,449	75,676	2001	93,000	116,000	2	2	2	3+1	C	D	D	E	Moderate
NN				WB		39,227		2001			2	2	2	3+1	D	C	F	D	
NN	I-64	YORKTOWN RD	FT EUSTIS BLVD	EB	2.45	37,749	79,663	2001	98,000	124,000	2	2	2	3+1	C	D	D	F	Moderate
NN				WB		41,914		2001			2	2	2	3+1	D	C	F	D	
NN	I-64	FT EUSTIS BLVD	JEFFERSON AVE	EB	4.86	45,480	89,613	2001	104,000	145,000	2	2	2	3+1	D	E	F	F	Severe
NN				WB		44,133		2001			2	2	2	3+1	D	D	F	E	
NN	I-64	JEFFERSON AVE	OYSTER POINT RD	EB	1.60	48,806	104,800	2001	116,000	156,000	3	3+1	3+1	3+1	C	C	C	C	Severe
NN				WB		55,994		2001			3	3+1	3+1	3+1	C	C	C	C	
NN	I-64	OYSTER POINT RD	J C MORRIS BLVD	EB	1.64	61,554	123,615	2003	136,000	161,000	3	3+1	3+1	3+1	D	C	D	D	Severe
NN				WB		62,061		2003			3	3+1	3+1	3+1	C	D	C	D	
NN	I-64	J C MORRIS BLVD	HAMPTON CL	EB	0.90	74,153	144,824	2001	168,000	185,000	3	3+1	3+1	3+1	E	D	F	E	Severe
NN				WB		70,671		2001			3	3+1	3+1	3+1	D	D	E	E	
NN	I-664/MMMBT	SUFFOLK CL	TERMINAL AVE	EB	2.85	25,936	52,344	2003	64,000	75,000	2	2	2	2	C	B	D	C	Severe
NN				WB		26,408		2003			2	2	2	2	B	D	C	E	
NN	I-664	TERMINAL AVE	23RD ST	EB	0.92	25,607	50,336	2002	63,000	75,000	3	3	3	3	B	B	C	B	Low to Moderate
NN				WB		24,729		2001			3	3	3	3	B	B	C	C	
NN	I-664	23RD ST	CHESTNUT ST	EB	1.69	28,031	58,926	2001	73,000	84,000	3	3	3	3	C	B	C	B	Moderate
NN				WB		30,895		2001			3	3	3	3	B	C	B	D	
NN	I-664	CHESTNUT ST	HAMPTON CL	EB	0.24	35,625	71,070	2001	88,000	84,000	3	3	3	3	D	B	D	C	Moderate
NN				WB		35,445		2001			3	3	3	3	B	D	C	D	
NOR	I-64/HRBT	HAMPTON CL	OCEAN VIEW AVE	EB	0.19	46,288	91,225	2003	101,000	107,000	2	2	2	2	F	F	F	F	Severe
NOR				WB		44,937		2003			2	2	2	2	E	F	F	F	
NOR	I-64	OCEAN VIEW AVE	4TH VIEW AVE	EB	1.82	46,288	91,225	2003	101,000	104,000	2	2	2	2	D	D	E	D	Severe
NOR				WB		44,937		2003			2	2	2	2	E	F	F	F	
NOR	I-64	4TH VIEW AVE	BAY AVE	EB	1.01	45,793	88,062	2003	97,000	90,000	2	2	2	2	D	D	E	D	Moderate
NOR				WB		42,269		2003			2	2	2	2	C	C	D	D	
NOR	I-64	BAY AVE	GRANBY AVE	EB	1.60	51,024	98,260	2003	108,000	100,000	2	2	2	2	E	E	F	F	Severe
NOR				WB		47,236		2003			2	2	2	2	D	D	D	D	
NOR	I-64	GRANBY ST	I-564/LITTLE CREEK RD	EB	0.21	51,024	98,260	2003	108,000	96,000	2	2	2	2	E	E	F	F	Severe
NOR				WB		47,236		2003			2	2	2	2	D	D	D	D	
NOR	I-64 HOV	I-564/LITTLE CREEK RD	TIDEWATER DR	HO		22,691		2003			2	2	2	2	A	A	A	A	
NOR	I-64	I-564/LITTLE CREEK RD	TIDEWATER DR	EB	1.17	60,213	148,429	2003	164,000	135,000	4	4	4	4	C	C	C	D	Severe
NOR	I-64	I-564/LITTLE CREEK RD	TIDEWATER DR	WB		65,525		2003			4	4	4	4	C	B	D	C	
NOR	I-64 HOV	TIDEWATER DR	CHESAPEAKE BLVD	HO		22,691		2003			2	2	2	2	A	A	A	A	
NOR	I-64	TIDEWATER DR	CHESAPEAKE BLVD	EB	1.04	63,353	139,350	2003	154,000	132,000	3	3	3	3	D	D	D	E	Moderate
NOR	I-64	TIDEWATER DR	CHESAPEAKE BLVD	WB		53,306		2003			3	3	3	3	D	C	D	C	
NOR	I-64 HOV	CHESAPEAKE BLVD	NORVIEW AVE	HO		22,691		2003			2	2	2	2	A	A	A	A	
NOR	I-64	CHESAPEAKE BLVD	NORVIEW AVE	EB	0.97	64,245	150,625	2003	166,000	156,000	3	3	3	3	D	D	D	D	Severe
NOR	I-64	CHESAPEAKE BLVD	NORVIEW AVE	WB		63,689		2003			3	3	3	3	E	C	F	C	
NOR	I-64 HOV	NORVIEW AVE	MILITARY HWY	HO		22,691		2003			2	2	2	2	A	A	A	A	
NOR	I-64	NORVIEW AVE	MILITARY HWY	EB	1.22	69,407	171,005	2003	189,000	165,000	3	3	3	3	D	D	D	D	Severe
NOR	I-64	NORVIEW AVE	MILITARY HWY	WB		78,907		2003			3	3	3	3	F	D	F	E	

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Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	'01-'03 Existing ADT (One-way)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
															AM	PM	AM	PM	
NOR	I-64 HOV	MILITARY HWY	NORTHAMPTON BLVD	HO	1.07	22,691	171,696	2003	189,000	157,000	2	2	2	2	A	A	A	A	Severe
NOR	I-64	MILITARY HWY	NORTHAMPTON BLVD	EB		72,174		2003			3	3	3	3	D	E	E	E	
NOR	I-64	MILITARY HWY	NORTHAMPTON BLVD	WB		76,831		2003			3	3	3	3	F	D	F	D	
NOR	I-64 HOV	NORTHAMPTON BLVD	I-264	HO	2.12	17,201	178,304	2003	196,000	169,000	2	2	2	2	A	A	A	A	Severe
NOR	I-64	NORTHAMPTON BLVD	I-264	EB		74,259		2003			3	3	3	3	D	E	E	E	
NOR	I-64	NORTHAMPTON BLVD	I-264	WB		86,844		2003			4	4	4	4	D	D	D	D	
NOR	I-64 HOV	I-264	VA BEACH CL	HO	0.93	7,527	142,018	2003	165,000	151,000	2	2	2	2	A	A	A	A	Severe
NOR	I-64	I-264	VA BEACH CL	EB		67,699		2003			3	3	3	3	D	F	D	F	
NOR	I-64	I-264	VA BEACH CL	WB		66,792		2003			3	3	3	3	E	D	F	D	
NOR	I-264/DOWNTOWN TUNNEL	PORTSMOUTH CL	I-464	EB	0.40	48,960	101,429	2003	108,000	128,000	2	2	2	2	F	F	F	F	Severe
NOR				WB		52,469		2003			2	2	2	2	F	F	F	F	
NOR	I-264	I-464	WATERSIDE/CITY HALL/TIDEWATER	EB	0.72	57,301	121,818	2003	131,000	142,000	4	4	4	4	F	D	F	E	Severe
NOR				WB		64,517		2003			4	4	4	4	F	F	F	F	
NOR	I-264	WATERSIDE/CITY HALL/TIDEWATER	BRAMBLETON AVE	EB	0.91	57,536	110,452	2003	122,000	111,000	4+1	4+1	4+1	4+1	B	C	B	C	Moderate
NOR				WB		52,916		2003			3+1	3+1	3+1	3+1	D	B	D	B	
NOR	I-264	BRAMBLETON AVE	BALLENTINE BLVD	EB	0.85	66,916	130,286	2003	144,000	129,000	3+1	3+1	3+1	3+1	C	E	C	F	Moderate
NOR				WB		63,370		2003			3+1	3+1	3+1	3+1	D	B	E	C	
NOR	I-264	BALLENTINE BLVD	MILITARY HWY	EB	2.43	70,287	136,330	2003	150,000	118,000	3+1	3+1	3+1	3+1	C	E	C	F	Moderate
NOR				WB		66,043		2003			3+1	3+1	3+1	3+1	D	B	E	C	
NOR	I-264	MILITARY HWY	I-64	EB	0.78	70,287	136,330	2003	150,000	153,000	5+1	5+1	5+1	5+1	B	C	B	C	Moderate
NOR				WB		66,043		2003			5+1	5+1	5+1	5+1	C	B	C	B	
NOR	I-264	I-64	NEWTOWN RD/WCL VA. BEACH	EB	0.74	119,100	241,927	2003	260,000	260,000	5+1	5+1	5+1	5+1	D	E	D	E	Severe
NOR				WB		122,827		2003			5+1	5+1	5+1	5+1	F	D	F	E	
NOR	I-464	NORFOLK CL	SOUTH MAIN ST	NB	0.42	27,273	50,253	2003	58,000	64,000	2	2	2	2	D	B	E	B	Moderate
NOR				SB		22,980		2003			2	2	2	2	A	C	A	D	
NOR	I-464	SOUTH MAIN ST	I-264	NB	0.61	24,220	45,138	2003	52,000	59,000	2	2	2	2	E	B	E	B	Moderate
NOR				SB		20,918		2003			2	2	2	2	A	C	A	C	
NOR	I-564	ADM TAUSSIG BLVD	FUTURE INTERMODAL CONNECTOR	NB	0.50	21,306	46,032	2003	51,000	31,000	2	2	2	2	D	A	D	A	Low to Moderate
NOR				SB		24,726		2003			2	2	2	2	A	F	A	F	
NOR	I-564	FUTURE INTERMODAL CONNECTOR	INTERNATIONAL TERMINAL BLVD	NB	1.37	21,306	46,032	2003	51,000	45,000	2+1	2+1	2+1	2+1	C	A	D	A	Low to Moderate
NOR				SB		24,726		2003			2+1	2+1	2+1	2+1	A	E	A	F	
NOR	I-564	INTERNATIONAL TERMINAL BLVD	I-64	NB	0.90	34,693	66,116	2003	73,000	61,000	2+1	2+1	2+1	2+1	C	A	C	A	Low to Moderate
NOR				SB		31,423		2003			2+1	2+1	2+1	2+1	A	D	A	D	
NOR	THIRD HR CROSSING (E-W)	PORTSMOUTH CL	SECOND ST	EB	1.25	DNE	DNE			29,300	0	0	0	**2+1**	-	-	-	-	Low to Moderate
NOR				WB		DNE					0	0	0	**2+1**	-	-	-	-	
NOR	THIRD HR CROSSING (E-W)	SECOND ST	HAMPTON BLVD	EB	0.83	DNE	DNE			29,300	0	0	0	**2+1**	-	-	-	-	Low to Moderate
NOR				WB		DNE					0	0	0	**2+1**	-	-	-	-	
NOR	THIRD HR CROSSING	HAMPTON BLVD	I-564	EB	0.66	DNE	DNE			21,000	0	0	0	**2+1**	-	-	-	-	Low to Moderate
NOR	(INTERMODAL CONN)			WB		DNE					0	0	0	**2+1**	-	-	-	-	
PORT	I-264	WCL PORTSMOUTH	GREENWOOD DR	EB	0.42	25,319	50,806	2003	59,000	53,000	2	2	2	2	D	B	E	C	Moderate
PORT				WB		25,487		2003			2	2	2	2	B	D	B	E	
PORT	I-264	GREENWOOD DR	VICTORY BLVD	EB	1.31	24,255	49,505	2003	57,000	56,000	2	2	2	2	D	B	E	B	Severe
PORT				WB		25,250		2003			2	2	2	2	B	D	B	E	
PORT	I-264	VICTORY BLVD	PORTSMOUTH BLVD	EB	0.75	32,341	63,855	2003	74,000	70,000	3	3	3	3	C	B	C	B	Low to Moderate
PORT				WB		31,514		2003			3	3	3	3	A	C	B	D	
PORT	I-264	PORTSMOUTH BLVD	FREDERICK BLVD	EB	0.91	34,582	68,321	2003	75,000	74,000	3	3	3	3	C	B	C	B	Low to Moderate
PORT				WB		33,739		2003			3	3	3	3	A	C	B	D	

Appendix C: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **INTERSTATES AND FREEWAYS/EXPRESSWAYS**

Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	'01-'03 Existing ADT (One-way)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
															AM	PM	AM	PM	
PORT	I-264	FREDERICK BLVD	FUTURE MLK FWY	EB	0.45	43,242	82,090	2003	90,000	86,000	3	3	3	3	D	B	D	C	Moderate
PORT				WB		38,848		2003			3	3	3	3	B	D	B	D	
PORT	I-264	FUTURE MLK FWY	DES MOINES AVE	EB	0.51	43,242	82,090	2003	90,000	86,000	3	3	3	3	D	B	D	C	Moderate
PORT				WB		38,848		2003			3	3	3	3	B	D	B	D	
PORT	I-264	DES MOINES AVE	EFFINGHAM ST	EB	0.72	43,462	79,072	2003	87,000	83,000	3	3	3	3	C	C	C	C	Moderate
PORT				WB		35,610		2003			3	3	3	3	B	C	B	D	
PORT	I-264/DOWNTOWN TUNNEL	EFFINGHAM ST	NORFOLK CL	EB	0.72	48,960	101,429	2003	108,000	128,000	2	2	2	2	F	F	F	F	Severe
PORT				WB		52,469		2003			2	2	2	2	F	F	F	F	
PORT	M L K FREEWAY	HIGH ST	LONDON BLVD	NB	0.25	11,912	25,963	2003	31,000	34,000	2	2	2	2	B	A	B	A	Low to Moderate
PORT				SB		14,051		2003			2	2	2	2	A	B	A	B	
PORT	M L K FREEWAY	LONDON BLVD	WESTERN FREEWAY/MIDTOWN TUNNEL	NB	0.98	12,132	23,976	2000	33,000	43,000	2	2	2	2	B	A	B	A	Low to Moderate
PORT				SB		11,844		2000			2	2	2	2	A	B	A	B	
PORT	THIRD HR CROSSING (E-W)	SUFFOLK CL	NORFOLK CL	EB	4.30	DNE	DNE			29,300	0	0	0	**2+1**	-	-	-	-	Low to Moderate
PORT				WB		DNE					0	0	0	**2+1**	-	-	-	-	
PORT	WESTERN FWY	SUFFOLK CL	TOWN POINT RD	EB	1.01	18,035	36,421	2003	45,000	66,000	2	2	2	2	B	B	B	B	Moderate
PORT				WB		18,386		2003			2	2	2	2	B	B	C	C	
PORT	WESTERN FWY	TOWN POINT RD	CEDAR LN	EB	1.31	18,035	36,421	2003	45,000	79,000	2	2	2	2	B	B	B	B	Severe
PORT				WB		18,386		2003			2	2	2	2	B	B	C	C	
PORT	WESTERN FWY	CEDAR LN	CRANEY ISLAND CONNECTOR	EB	1.00	11,794	24,427	2003	48,000	78,000	2	2	2	2	A	A	B	B	Severe
PORT				WB		12,633		2003			2	2	2	2	A	B	B	C	
PORT	WESTERN FWY	CRANEY ISLAND CONNECTOR	WEST NORFOLK RD	EB	0.61	11,794	24,427	2003	48,000	78,000	2	2	2	2	A	A	B	B	Severe
PORT				WB		12,633		2003			2	2	2	2	A	B	B	C	
PORT	WESTERN FWY	WEST NORFOLK RD	MLK FREEWAY/MIDTOWN TUNNEL	EB	1.78	11,794	24,427	2003	48,000	77,000	1	1	**2**	2	A	A	B	B	Severe
PORT				WB		12,633		2003			1	1	**2**	2	A	B	B	C	
SUF	I-664	CHESAPEAKE CL	BRIDGE RD	EB	0.74	33,821	67,642	2003	78,000	83,000	3	3	3	3	B	D	B	D	Severe
SUF				WB		33,821		2003			3	3	3	3	C	C	C	C	
SUF	I-664	BRIDGE RD	WESTERN FWY	EB	0.15	33,821	67,642	2003	78,000	74,000	2	2	2	2	B	D	B	D	Moderate
SUF				WB		33,821		2003			2	2	2	2	C	C	C	C	
SUF	I-664	WESTERN FWY	COLLEGE DR	EB	1.41	26,449	54,019	2003	62,000	69,000	3	3	3	3	A	C	B	C	Moderate
SUF				WB		27,570		2003			3	3	3	3	B	B	C	B	
SUF	I-664/MMMBT	COLLEGE DR	NEWPORT NEWS CL	EB	3.28	25,936	52,344	2003	60,000	75,000	2	2	2	2	C	B	D	C	Severe
SUF				WB		26,408		2003			2	2	2	2	B	D	C	E	
SUF	MILITARY HWY	SUFFOLK BYPASS	CHESAPEAKE CL	EB	3.61	32,336	64,793	2003	72,000	85,000	3	3	3	3	C	B	C	B	Moderate
SUF				WB		32,457		2003			3	3	3	3	B	C	B	C	
SUF	ROUTE 460 RELOCATED	SUFFOLK BYPASS	ISLE OF WIGHT CL	EB	5.13	DNE	DNE			29,300	0	0	0	**2**	-	-	-	-	Low to Moderate
SUF				WB		DNE					0	0	0	**2**	-	-	-	-	
SUF	SOUTHWEST SUFFOLK BYPASS	HOLLAND RD	CAROLINA RD	EB	2.55	4,650	9,300	2003	12,000	6,000	0	**2**	2	2	A	A	A	A	Low to Moderate
SUF				WB		4,650		2003			0	**2**	2	2	A	A	A	A	
SUF	SUFFOLK BYPASS	HOLLAND RD	PITCHKETTLE RD	EB	1.69	13,893	28,461	2002	32,000	41,000	2	2	2	2	B	A	B	A	Low to Moderate
SUF				WB		14,568		2002			2	2	2	2	A	B	A	B	
SUF	SUFFOLK BYPASS	PITCHKETTLE RD	PRUDEN BLVD	EB	1.63	14,749	30,195	2002	34,000	40,000	2	2	2	2	B	A	B	A	Low to Moderate
SUF				WB		15,446		2002			2	2	2	2	A	B	A	B	
SUF	SUFFOLK BYPASS	PRUDEN BLVD	GODWIN BLVD	EB	1.06	19,510	38,145	2002	41,000	55,000	2	2	2	2	B	B	C	B	Moderate
SUF				WB		18,635		2002			2	2	2	2	B	B	B	C	
SUF	SUFFOLK BYPASS	GODWIN BLVD	WILROY RD	EB	1.85	22,682	45,605	2002	49,000	69,000	2	2	2	2	C	B	C	C	Moderate
SUF				WB		22,923		2002			2	2	2	2	B	C	C	C	
SUF	SUFFOLK BYPASS	WILROY RD	MILITARY HWY	EB	2.02	18,364	36,635	2002	41,000	54,000	2	2	2	2	B	B	B	C	Moderate
SUF				WB		18,271		2002			2	2	2	2	B	B	C	B	

Appendix C: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **INTERSTATES AND FREEWAYS/EXPRESSWAYS**

Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	'01-'03 Existing ADT (One-way)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
															AM	PM	AM	PM	
SUF	THIRD HR CROSSING (E-W)	I-664	PORTSMOUTH CL	EB	0.50	DNE	DNE			29,300	0	0	0	**2+1**	-	-	-	-	Low to Moderate
SUF				WB		DNE					0	0	0	**2+1**	-	-	-	-	
SUF	WESTERN FWY	BRIDGE RD	I-664	EB	0.74	9,359	18,718	2002	24,000	33,000	2	2	2	2	A	A	A	A	Low to Moderate
SUF				WB		9,359		2002			2	2	2	2	A	A	A	A	
SUF	WESTERN FWY	I-664	COLLEGE DR	EB	0.57	14,464	28,235	2002	34,000	50,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF				WB		13,771		2002			2	2	2	2	B	B	B	B	
SUF	WESTERN FWY	COLLEGE DR	PORTSMOUTH CL	EB	0.20	18,035	36,421	2003	45,000	66,000	2	2	2	2	B	B	B	B	Moderate
SUF				WB		18,386		2003			2	2	2	2	B	B	C	C	
VB	I-264	NEWTOWN RD/ECL NORFOLK	WITCHDUCK RD	EB	1.47	105,518	215,046	2003	232,000	216,000	4+1	4+1	4+1	4+1	D	E	D	F	**Severe**
VB				WB		109,528		2003			4+1	4+1	4+1	4+1	F	E	F	E	
VB	I-264	WITCHDUCK RD	INDEPENDENCE BLVD	EB	1.27	110,474	218,988	2003	236,000	213,000	4+1	4+1	4+1	4+1	D	E	E	F	**Severe**
VB				WB		108,514		2003			4+1	4+1	4+1	4+1	F	D	F	E	
VB	I-264	INDEPENDENCE BLVD	ROSEMONT RD	EB	2.36	85,790	174,480	2003	188,000	179,000	4+1	4+1	4+1	4+1	C	D	D	D	Moderate
VB				WB		88,690		2003			4+1	4+1	4+1	4+1	D	D	E	D	
VB	I-264	ROSEMONT RD	LYNNHAVEN PKWY	EB	1.72	69,853	145,210	2003	156,000	146,000	4	4	4	4	C	C	C	D	Moderate
VB				WB		75,357		2003			4	4	4	4	D	C	D	D	
VB	I-264	LYNNHAVEN PKWY	LASKIN RD	EB	1.48	61,209	114,238	2003	123,000	116,000	4	4	4	4	B	C	B	C	Moderate
VB				WB		53,029		2003			4	4	4	4	C	C	C	C	
VB	I-264	LASKIN RD	FIRST COLONIAL RD	EB	1.19	37,072	81,537	2003	90,000	89,000	4	4	4	4	A	B	A	B	Moderate
VB				WB		44,465		2003			4	4	4	4	B	B	B	B	
VB	I-264	FIRST COLONIAL RD	S.E. PARKWAY	EB	0.92	34,308	67,315	2003	74,000	78,000	3	3	3	3	B	C	B	C	Moderate
VB				WB		33,007		2003			3	3	3	3	B	B	B	B	
VB	I-264	S.E. PARKWAY	BIRDNECK RD	EB	0.56	34,308	67,315	2003	74,000	61,000	3	3	3	3	B	C	B	C	Low to Moderate
VB				WB		33,007		2003			3	3	3	3	B	B	B	B	
VB	I-264	BIRDNECK RD	PARKS AVE	EB	0.49	16,727	28,084	2003	31,000	35,000	3	3	3	3	A	A	A	A	Low to Moderate
VB				WB		11,357		2003			3	3	3	3	A	A	A	A	
VB	I-64	NORFOLK CL	INDIAN RIVER RD	EB	1.57	71,462	142,018	2003	165,000	151,000	3+1	3+1	3+1	3+1	D	F	D	F	**Severe**
VB				WB		70,556		2003			3+1	3+1	3+1	3+1	E	D	F	D	
VB	I-64	INDIAN RIVER RD	CHESEAPEAKE CL	EB	1.36	61,479	128,511	2003	142,000	119,000	3+1	3+1	3+1	3+1	C	D	D	E	Moderate
VB				WB		67,032		2003			3+1	3+1	3+1	3+1	D	C	E	D	
VB	SE EXPWY	WCL VA BEACH	INDIAN RIVER RD	EB	0.46	DNE	DNE			75,200	0	0	0	**2+1**	-	-	-	-	Moderate
VB				WB		DNE					0	0	0	**2+1**	-	-	-	-	
VB	SE EXPWY	INDIAN RIVER RD	PRINCESS ANNE RD	EB	2.74	DNE	DNE			42,000	0	0	0	**2+1**	-	-	-	-	Low to Moderate
VB				WB		DNE					0	0	0	**2+1**	-	-	-	-	
VB	SE EXPWY	PRINCESS ANNE RD	DAM NECK RD	EB	3.50	DNE	DNE			33,000	0	0	0	**2+1**	-	-	-	-	Low to Moderate
VB				WB		DNE					0	0	0	**2+1**	-	-	-	-	
VB	SE EXPWY	DAM NECK RD	OCEANA RD	EB	1.72	DNE	DNE			23,000	0	0	0	**2+1**	-	-	-	-	Low to Moderate
VB				WB		DNE					0	0	0	**2+1**	-	-	-	-	
VB	SE EXPWY	OCEANA RD	I-264	EB	3.33	DNE	DNE			38,000	0	0	0	**2+1**	-	-	-	-	Low to Moderate
VB				WB		DNE					0	0	0	**2+1**	-	-	-	-	
YC	I-64	JAMES CITY CL	RTE 199/646	EB	1.12	24,627	51,917	2001	68,000	87,000	2	2	2	2	B	B	B	C	**Severe**
YC				WB		27,290		2001			2	2	2	2	B	C	C	C	
YC	I-64	RTE 199/646	RTE 143	EB	4.29	23,078	49,744	2001	65,000	80,000	2	2	2	2	B	B	B	C	**Severe**
YC				WB		26,666		2001			2	2	2	2	B	C	B	C	
YC	I-64	RTE 143	RTE 199 (EAST OF WILLIAMSBURG)	EB	3.88	28,197	56,649	2001	74,000	80,000	2	2	2	2	B	C	C	C	**Severe**
YC				WB		28,452		2001			2	2	2	2	B	C	C	C	
YC	I-64	RTE 199 (EAST OF WILLIAMSBURG)	GROVE CONNECTOR	EB	1.14	36,132	78,634	2001	97,000	134,000	2	2	2	**3+1**	C	D	D	F	Moderate
YC				WB		42,502		2001			2	2	2	**3+1**	D	C	F	D	

Prepared by: Hampton Roads Planning District Commission

***See page 48 for legend and footnotes**

Appendix C: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **INTERSTATES AND FREEWAYS/EXPRESSWAYS**

Juris Name	Facility Name	Segment From	Segment To	Dir	Length (Mi)	'01-'03 Existing ADT (One-way)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
															AM	PM	AM	PM	
YC	I-64	GROVE CONNECTOR	JAMES CITY CL	EB	0.85	36,132	78,634	2001	97,000	119,000	2	2	2	3+1	C	D	D	F	Moderate
YC				WB		42,502		2001			2	2	2	3+1	D	C	F	D	
YC	RTE 199	JCC LINE (WESTSIDE)	MOORETOWN RD	EB	0.57	7,183	15,000	2001	18,000	25,000	2	2	2	2	A	A	A	A	Low to Moderate
YC				WB		7,817		2001			2	2	2	2	A	A	A	A	
YC	RTE 199	MOORETOWN RD	I-64	EB	0.85	9,274	18,623	2001	22,000	29,000	2	2	2	2	A	A	A	A	Low to Moderate
YC				WB		9,349		2001			2	2	2	2	A	A	A	A	

Legend:

- **Roadway capacity improvement made since last CMS update (2000)**
- **Programmed roadway capacity improvement by 2008 (TIP FY 05-08)**
- **Planned roadway capacity improvment by 2026 (2026 RTP)**
- **Level of Service D (Moderate Congestion)**
- **Level of Service E (Severe Congestion)**
- **Level of Service F (Severe Congestion)**

*Note: Three levels of analysis are generally used in computing levels of service: (1) Generalized Planning (2) Conceptual Planning, and (3) Operational Analysis. Generalized planning uses generalized tables with many default values to calculate "in the ballpark" levels of service. The CMS study uses a conceptual planning level analysis for the 2003 Existing and 2008 travel conditions and is best suited for obtaining a solid determination of the LOS of a facility. Conceptual planning is more detailed than generalized planning, however it does not involve comprehensive operational analysis. An operational analysis may include factors such as intersection signal timing or turning movements into and out of driveways along a facility. The 2026 congestion levels (PM peak hour only) were determined as a part of the 2026 Regional Transportation Plan, which utilized a generalized planning level. Some 2026 congestion levels, however, were adjusted slightly according to the detailed data that became available from the conceptual planning level analysis for the 2003 Existing and 2008 travel conditions.

Congestion Level	Level of Service
Low to Moderate	LOS A, B, or C
Moderate	LOS D
Severe	LOS E or F

Traffic Data Sources: Virginia Department of Transportation and Hampton Roads Jurisdictions

APPENDIX D

CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – Arterials and Collectors

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
CHES	22ND ST	LIBERTY ST	BERKLEY AVE/NORFOLK CL	0.31	6,711	2002	7,000	8,000	4	4	4	4	C	C	C	C	Low to Moderate
CHES	AIRLINE BLVD	I-664	JOLLIFF RD	0.38	10,200	2002	11,000	17,000	4	4	4	4	A	A	A	A	Low to Moderate
CHES	AIRLINE BLVD	JOLLIFF RD	PORTSMOUTH CL	1.78	9,040	2002	11,000	17,000	2	2	2	2	C	C	C	C	Low to Moderate
CHES	ATLANTIC AVE	CAMPOSTELLA RD	PROVIDENCE RD	0.38	20,037	2002	21,000	15,000	4	4	4	4	C	C	C	C	Low to Moderate
CHES	ATLANTIC AVE	PROVIDENCE RD	OLD ATLANTIC AVE	1.07	17,556	2002	21,000	17,000	4	4	4	4	B	B	C	C	Low to Moderate
CHES	ATLANTIC AVE	OLD ATLANTIC AVE	CAMPOSTELLA RD	0.57	10,620	2002	11,000	7,000	4	4	4	4	B	B	B	B	Low to Moderate
CHES	BAINBRIDGE BLVD	DOMINION BLVD	GREAT BRIDGE BLVD	2.05	4,579	2002	7,000	11,000	2	2	2	2	B	B	B	C	Low to Moderate
CHES	BAINBRIDGE BLVD	GREAT BRIDGE BLVD	MILITARY HWY	0.68	8,707	2002	11,000	12,000	2	2	2	2	D	D	D	E	Severe
CHES	BAINBRIDGE BLVD	MILITARY HWY	FREEMAN AVE	0.70	11,068	2002	11,000	11,000	2	2	2	2	C	D	C	D	Moderate
CHES	BAINBRIDGE BLVD	FREEMAN AVE	SWAIN AVE	0.94	11,068	2002	11,000	13,000	4	4	4	4	B	C	B	C	Low to Moderate
CHES	BAINBRIDGE BLVD	SWAIN AVE	CHESAPEAKE DR	0.20	11,068	2002	11,000	11,000	2	2	2	2	D	D	D	D	Moderate
CHES	BAINBRIDGE BLVD	CHESAPEAKE DR	POINDEXTER ST	0.93	10,072	2002	11,000	11,000	4	4	4	4	B	B	B	B	Low to Moderate
CHES	BAINBRIDGE BLVD	POINDEXTER ST	NORFOLK CL	0.53	1,687	2002	2,000	2,000	2	2	2	2	B	B	B	C	Low to Moderate
CHES	BATTLEFIELD BLVD	NORTH CAROLINA STATE LINE	BALLAHACK RD	0.50	19,244	2003	23,000	23,000	4	4	4	4	C	C	C	C	Low to Moderate
CHES	BATTLEFIELD BLVD	BALLAHACK RD	GALLBUSH RD	1.00	19,244	2003	23,000	23,000	4	4	4	4	C	C	C	C	Low to Moderate
CHES	BATTLEFIELD BLVD	GALLBUSH RD	INDIAN CREEK RD	2.63	11,974	2002	13,000	13,000	2	2	2	2	D	D	D	D	Moderate
CHES	BATTLEFIELD BLVD	INDIAN CREEK RD	CENTERVILLE TNPK	1.54	14,729	2002	15,000	18,000	2	2	2	2	D	E	D	E	Severe
CHES	BATTLEFIELD BLVD	CENTERVILLE TNPK	HILLCREST PKWY	2.05	16,294	2002	17,000	28,000	2	2	2	2	E	E	E	E	Severe
CHES	BATTLEFIELD BLVD	HILLCREST PKWY	PEACEFUL RD/HILLWELL RD	1.61	7,260	2003	9,000	10,000	2	2	2	2	D	D	D	E	Severe
CHES	BATTLEFIELD BLVD	PEACEFUL RD/HILLWELL RD	HANBURY RD	0.57	10,888	2003	15,000	14,000	2	2	2	2	C	C	D	D	Moderate
CHES	BATTLEFIELD BLVD	HANBURY RD	JOHNSTOWN RD	1.61	7,489	2002	11,000	11,000	2	2	2	2	B	B	B	B	Low to Moderate
CHES	BATTLEFIELD BLVD	JOHNSTOWN RD	CEDAR RD	0.28	31,684	2002	34,000	41,000	4	4	4	4	C	C	C	C	Severe
CHES	BATTLEFIELD BLVD	CEDAR RD	ALBEMARLE DR	0.14	34,348	2002	38,000	37,000	4	4	4	4	D	D	D	D	Severe
CHES	BATTLEFIELD BLVD	ALBEMARLE DR	WAYNE AVE	0.44	34,348	2002	38,000	43,000	2	2	4	4	F	F	D	D	Severe
CHES	BATTLEFIELD BLVD	WAYNE AVE	GREAT BRIDGE BLVD	0.62	34,348	2002	38,000	43,000	4	4	4	4	C	C	C	C	Severe
CHES	BATTLEFIELD BLVD	GREAT BRIDGE BLVD	GREAT BRIDGE BYPASS	0.19	35,238	2002	42,000	50,000	4	4	4	4	C	D	D	D	Moderate
CHES	BATTLEFIELD BLVD	GREAT BRIDGE BYPASS	VOLVO PKWY	1.97	43,567	2002	58,000	54,000	6	6	6	6	D	D	E	E	Moderate
CHES	BATTLEFIELD BLVD	VOLVO PKWY	I-64	0.65	64,198	2000	70,000	64,000	6	6	6	6	D	D	D	D	Moderate
CHES	BATTLEFIELD BLVD	I-64	MILITARY HWY	0.76	41,523	2003	45,000	44,000	6	6	6	6	B	B	B	C	Low to Moderate
CHES	BATTLEFIELD BLVD	MILITARY HWY	CAMPOSTELLA RD	0.56	28,000	2002	29,000	25,000	4	4	4	4	C	D	C	D	Low to Moderate
CHES	BENEFIT RD	JOHNSTOWN RD	SIGN PINE RD	1.80	1,714	2002	6,000	8,000	2	2	2	2	B	B	C	D	Low to Moderate
CHES	BLACKWATER RD	VIRGINIA BEACH CL	FENTRESS AIRFIELD RD	2.59	2,967	2002	3,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
CHES	BRIDGE RD	SUFFOLK CL	CHURCHLAND BLVD	0.61	22,415	2003	24,000	25,000	4	4	4	4	C	C	C	C	Low to Moderate
CHES	BRUCE RD	TAYLOR RD	TYRE NECK RD	1.60	12,380	2002	13,000	13,000	2	2	2	2	B	B	B	B	Low to Moderate
CHES	BUTTS STATION RD	KEMPSVILLE RD	CENTERVILLE TNPK	2.08	11,370	2002	18,000	16,000	2	2	2	2	C	D	F	F	Moderate
CHES	CAMPOSTELLA RD	GREAT BRIDGE BLVD	MILITARY HWY	1.32	6,900	2002	8,000	9,000	2	2	2	2	B	B	B	B	Low to Moderate
CHES	CAMPOSTELLA RD	MILITARY HWY	BATTLEFIELD BLVD	1.06	12,527	2002	12,000	13,000	2	2	2	2	C	D	C	D	Moderate
CHES	CAMPOSTELLA RD	BATTLEFIELD BLVD	PROVIDENCE RD	0.44	14,156	2002	14,000	15,000	2	2	2	2	C	D	C	D	Moderate
CHES	CAMPOSTELLA RD	PROVIDENCE RD	ATLANTIC AVE	1.47	14,681	2002	16,000	17,000	2	2	2	2	C	C	C	C	Severe
CHES	CAMPOSTELLA RD	ATLANTIC AVE	NORFOLK CL/BERKELY AVE EXT	0.34	20,539	2002	21,000	18,000	6	6	6	6	C	C	C	C	Low to Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
CHES	CANAL DR	MILITARY HWY	GEORGE WASHINGTON HWY	0.97	13,976	2002	15,000	19,000	4	4	4	4	B	B	B	B	Low to Moderate
CHES	CAVALIER BLVD	MILITARY HWY	PORTSMOUTH CL	1.24	12,768	2002	13,000	19,000	4	4	4	4	C	C	C	C	Low to Moderate
CHES	CEDAR RD	GEORGE WASHINGTON HWY	SHIPYARD RD/RELOCATED GW HWY	0.32	13,974	2002	19,000	51,000	2	2	**4**	4	D	D	B	B	Severe
CHES	CEDAR RD	SHIPYARD RD	WEST RD	1.94	9,862	2002	8,000	16,000	2	2	2	2	C	D	C	C	Severe
CHES	CEDAR RD	WEST RD	DOMINION BLVD	1.33	11,101	2002	10,000	16,000	2	2	2	2	B	B	B	B	Severe
CHES	CEDAR RD	DOMINION BLVD	BRIARFIELD DR	3.38	23,205	2002	30,000	45,000	4	4	4	4	B	B	B	B	Severe
CHES	CEDAR RD	BRIARFIELD DR	BATTLEFIELD BLVD	0.79	23,327	2002	25,000	31,000	3	3	3	**4**	D	D	D	D	Moderate
CHES	CEDAR RD RELOCATED	G.W. HWY RELOCATED	DOMINION BLVD	2.19	DNE		12,000	25,000	0	0	**4**	4	-	-	A	A	Moderate
CHES	CENTERVILLE TNPK	BATTLEFIELD BLVD	ETHRIDGE MANOR BLVD	3.75	6,354	2002	7,000	11,000	2	2	2	2	C	C	C	D	Moderate
CHES	CENTERVILLE TNPK	ETHRIDGE MANOR BLVD	MT PLEASANT RD	2.15	12,504	2002	18,000	20,000	2	2	2	2	D	E	E	E	Severe
CHES	CENTERVILLE TNPK	MT PLEASANT RD	BUTTS STATION RD	1.27	15,979	2002	19,000	21,000	2	2	2	2	D	E	E	E	Severe
CHES	CENTERVILLE TNPK	BUTTS STATION RD	ELBOW RD	0.45	9,328	2002	11,000	16,000	2	2	2	2	C	C	C	C	Severe
CHES	CENTERVILLE TNPK	ELBOW RD	S.E. PARKWAY	0.45	7,767	2002	12,000	23,000	2	2	2	2	C	C	C	D	Severe
CHES	CENTERVILLE TNPK	S.E. PARKWAY	VA BEACH CL	0.95	7,767	2002	12,000	21,000	2	2	2	2	C	C	C	D	Severe
CHES	CHURCHLAND BLVD	WESTERN BRANCH BLVD	TOWN POINT RD	0.59	6,190	2002	6,200	8,000	2	2	2	2	C	C	C	C	Low to Moderate
CHES	CHURCHLAND BLVD	TOWN POINT RD	PORTSMOUTH CL	0.11	17,258	2003	16,000	15,000	4	4	4	4	D	D	D	D	Moderate
CHES	DOCK LANDING RD	JOLLIFF RD	I-664	0.39	5,547	2002	8,000	10,000	4	4	4	4	C	B	C	C	Low to Moderate
CHES	DOCK LANDING RD	I-664	EAGLE HILL DR	0.74	6,060	2002	7,000	7,000	4	4	4	4	B	B	B	B	Low to Moderate
CHES	DOCK LANDING RD	EAGLE HILL DR	PORTSMOUTH BLVD	2.44	6,518	2002	7,000	7,000	2	2	2	2	A	A	A	A	Low to Moderate
CHES	DOMINION BLVD	GEORGE WASHINGTON HWY	CEDAR RD	4.00	8,413	2002	10,000	12,000	2	2	2	2	C	C	D	D	Moderate
CHES	DOMINION BLVD	CEDAR RD	BAINBRIDGE BLVD	0.93	28,411	2003	32,000	46,000	2	2	2	**4**	F	F	F	F	Severe
CHES	DOMINION BLVD	BAINBRIDGE BLVD	GREAT BRIDGE BLVD	1.62	26,440	2002	30,000	36,000	2	2	2	2	F	E	F	F	Severe
CHES	DOMINION BLVD	GREAT BRIDGE BLVD	I-464/OAK GROVE CONNECTOR	0.30	42,044	2000	46,000	64,000	4	4	4	4	E	C	E	D	Severe
CHES	EDINBURGH PKWY	SIGN PINE RD	HILLCREST PKWY	0.80	2,455	2003	9,000	12,000	0	**2**	2	2	B	B	C	C	Moderate
CHES	ELBOW RD	CENTERVILLE TNPK	VA BEACH CL	2.85	5,096	2003	6,000	0	2	2	2	2	D	D	D	D	NA
CHES	ETHRIDGE MANOR RD	HILLWELL RD	CENTERVILLE TPKE	1.99	9,935	2002	19,000	14,000	2	2	2	2	C	D	E	E	Moderate
CHES	FENTRESS AIRFIELD RD	BLACKWATER RD	MOUNT PLEASANT RD	0.16	4,593	2003	5,000	9,000	2	2	2	2	C	C	C	C	Low to Moderate
CHES	FREEMAN AVE	I-464	BAINBRIDGE BLVD	0.20	10,710	2002	12,000	15,000	4	4	4	4	C	C	C	C	Low to Moderate
CHES	GEORGE WASHINGTON HWY	NORTH CAROLINA STATE LINE	DOMINION BLVD	9.83	9,885	2003	13,000	16,000	2	2	**4**	4	E	E	A	A	Low to Moderate
CHES	GEORGE WASHINGTON HWY	DOMINION BLVD	CEDAR RD @ HINTON AVE	3.38	3,917	2002	6,000	12,000	2	2	2	2	B	B	B	B	Low to Moderate
CHES	GEORGE WASHINGTON HWY	CEDAR RD @ HINTON AVE	MILL CREEK PKWY	0.10	22,857	2002	28,000	51,000	2	2	2	**4**	F	F	F	F	Severe
CHES	GEORGE WASHINGTON HWY	MILL CREEK PKWY	WILLOWOOD DR	0.80	22,857	2002	28,000	49,000	2	2	2	2	F	F	F	F	Severe
CHES	GEORGE WASHINGTON HWY	WILLOWOOD DR	I-64	0.38	22,857	2002	28,000	46,000	4	4	4	4	C	C	C	C	Severe
CHES	GEORGE WASHINGTON HWY	I-64	MILITARY HWY	0.94	22,577	2002	25,000	34,000	4	4	4	4	B	B	B	B	Moderate
CHES	GEORGE WASHINGTON HWY	MILITARY HWY	CANAL DR	0.98	14,798	2001	15,000	18,000	2	2	2	2	C	C	C	C	Severe
CHES	GEORGE WASHINGTON HWY	CANAL DR	PORTSMOUTH CL	0.61	26,900	2002	30,000	36,000	4	4	4	4	D	D	D	F	Severe
CHES	GEORGE WASH HWY RELOCATED	GEORGE WASHINGTON HWY	CEDAR RD	0.56	DNE			13,000	0	0	0	**4**	-	-	-	-	Low to Moderate
CHES	GREAT BRIDGE BLVD	BAINBRIDGE BLVD	CAMPOSTELLA RD	0.84	4,801	2002	6,000	9,000	2	2	2	2	B	B	C	B	Low to Moderate
CHES	GREAT BRIDGE BLVD	CAMPOSTELLA RD	I-64	0.30	8,800	2002	9,000	9,000	2	2	2	2	F	D	F	D	Moderate
CHES	GREAT BRIDGE BLVD	I-64	DOMINION BLVD	0.26	11,912	2002	12,000	20,000	2	2	2	2	E	E	E	E	Severe

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
CHES	GREAT BRIDGE BLVD	DOMINION BLVD	RIVERWALK PKWY WEST	0.50	9,282	2002	11,000	26,000	4	4	4	4	C	C	C	C	Moderate
CHES	GREAT BRIDGE BLVD	RIVERWALK PKWY WEST	BATTLEFIELD BLVD	1.82	9,282	2002	11,000	11,000	2	2	2	2	C	C	D	C	Low to Moderate
CHES	GREENBRIER PKWY	KEMPSVILLE RD	VOLVO PKWY	1.86	22,513	2002	26,000	28,000	4	4	4	4	A	B	B	B	Moderate
CHES	GREENBRIER PKWY	VOLVO PKWY	EDEN WAY	0.41	42,268	2002	45,000	45,000	5	5	**6**	6	D	E	D	D	Severe
CHES	GREENBRIER PKWY	EDEN WAY	I-64	0.69	78,141	2002	81,000	82,000	6	6	6	6	F	F	F	F	Severe
CHES	GREENBRIER PKWY	I-64	MILITARY HWY	0.76	34,358	2002	36,000	37,000	6	6	6	6	C	C	C	C	Moderate
CHES	HANBURY RD	JOHNSTOWN RD	BATTLEFIELD BLVD	1.01	7,860	2002	9,500	10,000	2	2	2	**4**	C	C	C	C	Low to Moderate
CHES	HANBURY RD	BATTLEFIELD BLVD	HILLWELL RD	0.64	15,487	2003	19,000	14,000	4	4	4	4	D	D	D	D	Moderate
CHES	HILLCREST PKWY	EDINBURGH PKWY	CHESAPEAKE EXPRESSWAY	0.36	2,455	2003	13,000	14,000	0	**4**	4	4	B	B	B	C	Low to Moderate
CHES	HILLCREST PKWY	CHESAPEAKE EXPRESSWAY	BATTLEFIELD BLVD	0.30	11,652	2003	15,000	20,000	0	**4**	4	4	D	D	D	D	Moderate
CHES	INDIAN RIVER RD	NORFOLK CL	TATEMSTOWN RD	0.39	24,307	2002	25,000	25,000	6	6	6	6	B	B	B	B	Low to Moderate
CHES	INDIAN RIVER RD	TATEMSTOWN RD	VA BEACH CL	1.22	35,252	2003	36,000	36,000	6	6	6	6	B	B	B	B	Low to Moderate
CHES	JOHNSTOWN RD	BENEFIT RD	STONEGATE PKWY	3.85	3,603	2002	5,000	10,000	2	2	2	2	B	B	C	C	Low to Moderate
CHES	JOHNSTOWN RD	STONEGATE PKWY	HANBURY RD	1.27	10,392	2002	13,000	12,000	2	2	2	2	E	D	F	F	Moderate
CHES	JOHNSTOWN RD	HANBURY RD	PARKER RD	0.76	9,238	2003	11,000	9,000	2	2	2	2	B	B	D	C	Low to Moderate
CHES	JOHNSTOWN RD	PARKER RD	BATTLEFIELD BLVD	0.49	14,944	2002	18,000	19,000	4	4	4	4	C	C	C	C	Moderate
CHES	JOLLIFF RD	AIRLINE BLVD	DOCK LANDING RD	2.22	3,285	2002	5,000	8,000	2	2	2	2	A	A	A	A	Low to Moderate
CHES	JOLLIFF RD	DOCK LANDING RD	PORTSMOUTH BLVD	0.90	2,879	2002	4,000	9,000	2	2	2	2	B	B	B	B	Low to Moderate
CHES	KEMPSVILLE RD	BATTLEFIELD BLVD	GREENBRIER PKWY	1.27	18,163	2002	30,000	33,000	2	**6**	6	6	B	B	B	C	Severe
CHES	KEMPSVILLE RD	GREENBRIER PKWY	VOLVO PKWY	1.89	15,000	2002	35,000	42,000	2	**6**	6	6	A	A	A	A	Moderate
CHES	KEMPSVILLE RD	VOLVO PKWY	VA BEACH CL	0.38	29,819	2003	43,000	34,000	2	**6**	6	6	B	B	B	B	Low to Moderate
CHES	LIBERTY ST	SCL NORFOLK	22ND ST	0.36	4,978	2003	5,000	5,000	2	2	2	2	D	D	D	D	Moderate
CHES	LIBERTY ST	22ND ST	POINDEXTER RD	0.06	9,693	2002	10,000	20,000	4	4	4	4	D	D	D	D	Moderate
CHES	LIBERTY ST	POINDEXTER RD	OLD ATLANTIC AVE	0.37	9,693	2002	10,000	11,000	4	4	4	4	D	D	D	D	Moderate
CHES	LIBERTY ST	OLD ATLANTIC AVE	CAMPOSTELLA RD	0.37	5,698	2002	6,000	11,000	4	4	4	4	D	D	D	D	Moderate
CHES	MILITARY HWY	AIRLINE BLVD	I-64	3.28	8,101	2002	9,000	16,000	4	4	4	4	B	B	B	B	Low to Moderate
CHES	MILITARY HWY	I-64	CAVALIER BLVD	0.30	14,542	2002	16,000	23,000	4	4	4	4	C	C	C	C	Low to Moderate
CHES	MILITARY HWY	CAVALIER BLVD	GEORGE WASHINGTON HWY	0.91	17,061	2002	18,000	22,000	4	4	4	4	A	B	A	B	Low to Moderate
CHES	MILITARY HWY	GEORGE WASHINGTON HWY	CANAL DR	1.01	18,398	2002	19,000	28,000	4	4	4	4	B	B	B	B	Moderate
CHES	MILITARY HWY	CANAL DR	BAINBRIDGE BLVD	2.18	34,491	2003	36,000	39,000	4	4	4	4	C	D	C	D	Severe
CHES	MILITARY HWY	BAINBRIDGE BLVD	I-464	0.46	26,818	2002	29,000	31,000	4	4	4	4	C	D	C	D	Moderate
CHES	MILITARY HWY	I-464	CAMPOSTELLA RD	0.64	26,818	2002	29,000	32,000	4	4	4	4	D	E	D	E	Severe
CHES	MILITARY HWY	CAMPOSTELLA RD	BATTLEFIELD BLVD	0.60	28,579	2002	30,000	31,000	4	4	4	4	C	E	D	F	Severe
CHES	MILITARY HWY	BATTLEFIELD BLVD	ALLISON DR	0.66	31,964	2002	33,000	35,000	6	6	6	6	C	C	C	C	Low to Moderate
CHES	MILITARY HWY	ALLISON DR	GREENBRIER PKWY	0.50	34,312	2002	36,000	39,000	4	4	4	**6**	E	F	E	F	Low to Moderate
CHES	MILITARY HWY	GREENBRIER PKWY	VA BEACH CL	1.68	36,344	2002	37,000	39,000	4	4	4	**6**	D	F	D	F	Low to Moderate
CHES	MOUNT PLEASANT RD	BATTLEFIELD BLVD	CHESAPEAKE EXPRESSWAY	0.76	18,640	2002	25,000	35,000	4	4	4	4	A	B	B	C	Severe
CHES	MOUNT PLEASANT RD	CHESAPEAKE EXPRESSWAY	CENTERVILLE TNPK	2.43	17,950	2002	21,000	35,000	2	2	2	**4**	D	E	E	E	Severe
CHES	MOUNT PLEASANT RD	CENTERVILLE TNPK	FENTRESS AIRFIELD RD	4.53	9,655	2003	11,000	10,000	2	2	2	2	D	D	D	D	Moderate
CHES	MOUNT PLEASANT RD	FENTRESS AIRFIELD RD	VA BEACH CL	0.91	10,134	2003	11,000	12,000	2	2	2	2	D	D	D	D	Moderate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
CHES	OLD ATLANTIC AVE	ATLANTIC AVE	LIBERTY ST	0.31	5,978	2002	6,000	12,000	4	4	4	4	C	C	C	C	Low to Moderate
CHES	POINDEXTER ST	PORTSMOUTH CL	I-464	0.85	7,919	2003	9,000	14,000	2	2	2	2	C	C	C	D	Moderate
CHES	POINDEXTER ST	I-464	BAINBRIDGE BLVD	0.20	9,000	2002	10,000	17,000	4	4	4	4	C	C	C	C	Low to Moderate
CHES	POINDEXTER ST	BAINBRIDGE BLVD	LIBERTY ST	0.48	9,757	2002	10,000	11,000	2	2	2	2	C	D	C	D	Moderate
CHES	PORTSMOUTH BLVD	SUFFOLK CL	JOLLIFF RD	0.75	13,017	2002	16,000	24,000	2	2	2	**4**	D	D	E	E	Low to Moderate
CHES	PORTSMOUTH BLVD	JOLLIFF RD	I-664	0.60	18,660	2002	21,000	27,000	4	4	4	4	B	B	B	C	Moderate
CHES	PORTSMOUTH BLVD	I-664	TAYLOR RD	1.34	27,056	2002	29,000	30,000	4	4	4	4	C	C	C	D	Moderate
CHES	PORTSMOUTH BLVD	TAYLOR RD	PORTSMOUTH CL	0.70	32,927	2002	34,000	36,000	4	4	4	4	C	C	C	C	Severe
CHES	PROVIDENCE RD	ATLANTIC AVE	CAMPOSTELLA RD	0.20	5,700	2002	6,000	10,000	4	4	4	4	B	B	B	B	Low to Moderate
CHES	PROVIDENCE RD	CAMPOSTELLA RD	VA BEACH CL	2.34	18,953	2002	19,000	16,000	4	4	4	4	B	B	B	B	Low to Moderate
CHES	PUGHSVILLE RD	SUFFOLK CL	I-664	0.63	7,231	2002	9,000	16,000	4	4	4	4	B	B	B	B	Low to Moderate
CHES	PUGHSVILLE RD	I-664	TAYLOR RD	0.37	19,323	2002	22,000	24,000	4	4	4	4	C	C	C	C	Moderate
CHES	SIGN PINE RD	EDINBURGH PKWY	BENEFIT RD	1.02	1,775	2002	9,000	12,000	2	2	2	2	C	C	E	E	Severe
CHES	TAYLOR RD	PORTSMOUTH BLVD	ELIZABETH HARBOR RD	0.77	19,437	2003	23,000	27,000	4	4	4	4	C	D	C	D	Moderate
CHES	TAYLOR RD	ELIZABETH HARBOR RD	BRUCE RD	0.99	23,204	2002	23,000	27,000	4	4	4	4	C	C	C	C	Moderate
CHES	TAYLOR RD	BRUCE RD	PUGHSVILLE RD	0.31	21,692	2002	23,000	27,000	4	4	4	4	C	C	C	C	Moderate
CHES	TAYLOR RD	PUGHSVILLE RD	WESTERN BRANCH BLVD	1.70	15,000	2002	16,000	19,000	4	4	4	4	B	B	B	B	Low to Moderate
CHES	TOWN POINT RD	PORTSMOUTH CL	CHURCHLAND BLVD	0.09	25,220	2003	25,000	28,000	4	4	4	4	C	C	C	C	Moderate
CHES	TYRE NECK RD	BRUCE RD	SILVERWOOD BLVD	1.10	11,761	2002	12,000	13,000	2	2	2	2	D	D	D	D	Severe
CHES	TYRE NECK RD	SILVERWOOD BLVD	PORTSMOUTH CL	0.15	12,400	2003	13,000	14,000	2	2	2	2	D	E	D	E	Severe
CHES	VOLVO PKWY	BATTLEFIELD BLVD	GREENBRIER PKWY	1.40	27,132	2002	35,000	22,000	4	4	4	4	C	C	C	D	Low to Moderate
CHES	VOLVO PKWY	GREENBRIER PKWY	FAIRWAY REACH RD	0.82	21,032	2002	29,000	30,000	4	4	4	4	C	C	D	C	Moderate
CHES	VOLVO PKWY	FAIRWAY REACH RD	KEMPSVILLE RD	0.60	24,879	2002	32,000	35,000	4	4	4	4	C	C	E	D	Severe
CHES	VOLVO PKWY	KEMPSVILLE RD	VA BEACH CL	0.53	DNE	2003	15,000	23,000	0	0	**4**	4	-	-	A	A	Low to Moderate
CHES	WESTERN BRANCH BLVD	CHURCHLAND BLVD	TAYLOR RD	0.32	19,707	2002	22,000	33,000	4	4	4	4	C	C	C	C	Moderate
CHES	WESTERN BRANCH BLVD	TAYLOR RD	PORTSMOUTH CL	0.32	23,758	2003	24,000	26,000	4	4	4	4	D	E	D	E	Severe
GLO	BELROI RD	HICKORY FORK RD	ROUTE 17	3.62	4,609	2003	5,000	8,000	2	2	2	2	C	C	C	C	Low to Moderate
GLO	GUINEA RD	ROUTE 17	MARYUS RD	3.66	9,275	2003	10,000	10,000	2	2	2	2	B	C	B	C	Low to Moderate
GLO	HICKORY FORK RD	ROUTE 17	BELROI RD	5.33	5,734	2003	6,000	6,000	2	2	2	2	C	C	C	C	Low to Moderate
GLO	RTE 17 (COLEMAN BRIDGE)	YORK CL	RTE 216 (GUINEA RD)	2.96	34,070	2003	39,000	43,000	4	4	4	4	D	F	F	F	Severe
GLO	RTE 17	RTE 216 (GUINEA RD)	RTE 614 E (FEATHERBED LANE)	4.29	36,168	2003	41,000	43,000	4	4	4	4	B	F	D	F	Severe
GLO	RTE 17	RTE 614 E (FEATHERBED LANE)	RTE 17 BUS S (MAIN ST)	4.76	29,232	2003	32,000	40,000	4	4	4	4	B	B	B	B	Severe
GLO	RTE 17	RTE 17 BUS S (MAIN ST)	RTE 606 (ARK RD)	4.06	17,672	2003	19,000	19,000	4	4	4	4	A	A	A	A	Low to Moderate
GLO	MAIN ST (BUS RTE 17)	RTE 17 (SOUTH INTERSECTION)	RTE 3/14E	1.20	21,754	2003	23,000	24,000	4	4	4	4	A	A	A	B	Moderate
GLO	RTE 3/14	RTE 17 BUS	COW CREEK	1.70	17,110	2003	18,000	20,000	4	4	4	4	A	A	A	B	Low to Moderate
HAM	ABERDEEN RD	NEWPORT NEWS CL	PEMBROKE AVE	0.30	12,451	2002	13,000	11,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	ABERDEEN RD	PEMBROKE AVE	I-664	0.17	16,097	2001	17,000	15,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	ABERDEEN RD	I-664	BRIARFIELD RD	0.99	19,090	2003	20,000	21,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	ABERDEEN RD	BRIARFIELD RD	MERCURY BLVD	1.29	17,792	2003	19,000	16,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	ABERDEEN RD	MERCURY BLVD	TODDS LA	0.20	13,605	2002	14,000	13,000	4	4	4	4	C	C	C	C	Low to Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
HAM	ARMISTEAD AVE	WYTHE CREEK RD	NASA MAIN GATE	0.96	15,181	2003	19,000	17,000	2	2	4	4	E	F	C	C	Low to Moderate
HAM	ARMISTEAD AVE	NASA MAIN GATE	CMDR SHEPPARD BLVD	0.32	20,097	2003	24,000	23,000	4	4	4	4	D	D	D	D	Moderate
HAM	ARMISTEAD AVE	CMDR SHEPPARD BLVD	HRC PARKWAY	1.52	29,173	2003	26,000	25,000	4	4	4	4	C	C	B	C	Low to Moderate
HAM	ARMISTEAD AVE	HRC PARKWAY	MERCURY BLVD	1.30	35,453	2003	28,000	31,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	ARMISTEAD AVE	MERCURY BLVD	PINE CHAPEL RD	0.14	20,396	2001	23,000	26,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	ARMISTEAD AVE	PINE CHAPEL RD	LASALLE AVE	0.95	22,029	2003	23,000	26,000	4	4	4	4	B	B	B	B	Moderate
HAM	ARMISTEAD AVE	LA SALLE AVE	RIP RAP RD	0.44	17,860	2003	18,000	18,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	ARMISTEAD AVE	RIP RAP RD	PEMBROKE AVE	0.37	13,131	2003	15,000	15,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	ARMISTEAD AVE	PEMBROKE AVE	SETTLERS LANDING RD	0.37	12,854	2003	14,000	14,000	4	4	4	4	D	D	D	E	Severe
HAM	BIG BETHEL RD	TODDS LANE	HRC PKWY	1.23	34,089	2003	36,000	39,000	4	4	4	4	C	C	C	D	Severe
HAM	BIG BETHEL RD	HRC PKWY	THOMAS NELSON DR	0.57	26,169	2001	30,000	37,000	4	4	4	4	C	C	C	D	Severe
HAM	BIG BETHEL RD	THOMAS NELSON DR	SAUNDERS RD	1.25	22,214	2003	19,000	33,000	4	4	4	4	C	C	C	C	Severe
HAM	BIG BETHEL RD	SAUNDERS RD	SEMPLE FARM RD	0.15	16,398	2003	18,000	20,000	4	4	4	4	D	D	D	D	Low to Moderate
HAM	BIG BETHEL RD	SEMPLE FARM RD	YORK CL	0.28	11,357	2001	12,000	15,000	2	2	2	2	D	D	E	E	Moderate
HAM	BRIARFIELD RD	NEWPORT NEWS CL	ABERDEEN RD	0.87	12,574	2002	13,000	15,000	2	2	2	2	C	E	C	E	Moderate
HAM	BRIARFIELD RD	ABERDEEN RD	QUEEN ST	1.06	14,466	2003	15,000	15,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	CHESTNUT AVE	NEWPORT NEWS CL	MERCURY BLVD	0.20	8,835	2003	9,000	7,000	2	2	2	2	C	D	C	D	Low to Moderate
HAM	CMDR SHEPPARD BLVD	BIG BETHEL RD	MAGRUDER BLVD	1.33	DNE			14,000	0	0	0	4	-	-	-	-	Low to Moderate
HAM	CMDR SHEPPARD BLVD	MAGRUDER BLVD	ARMISTEAD AVE	0.73	8,087	2003	10,000	13,000	4	4	4	4	A	A	A	A	Low to Moderate
HAM	COLISEUM DR	MERCURY BLVD	MARCELLA DR	0.66	20,897	2002	21,000	28,000	4	4	4	6	D	D	D	D	Moderate
HAM	COLISEUM DR	MARCELLA DR	HRC PARKWAY	0.74	17,435	2002	20,000	28,000	4	4	4	6	B	B	B	C	Moderate
HAM	COUNTY ST	WOODLAND RD	MALLORY ST	0.41	5,139	2002	6,000	6,000	3	3	3	3	C	C	C	C	Low to Moderate
HAM	CUNNINGHAM DR	TODDS LA	COLISEUM DR	0.86	23,518	2003	23,000	26,000	4	4	4	4	D	D	D	D	Moderate
HAM	CUNNINGHAM DR	COLISEUM DR	MERCURY BLVD	0.74	14,902	2003	16,000	13,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	FOX HILL RD	OLD BUCKROE RD	WOODLAND RD	1.10	22,692	2003	23,000	15,000	4	4	4	4	F	D	F	D	Low to Moderate
HAM	FOX HILL RD	WOODLAND RD	MERCURY BLVD	1.89	28,701	2003	29,000	28,000	4	4	4	4	F	F	F	F	Moderate
HAM	HARRIS CREEK RD	FOX HILL RD	LITTLE BACK RIVER RD	0.80	3,615	2002	5,000	5,000	2	2	2	2	C	C	D	C	Low to Moderate
HAM	HRC PARKWAY	NEWPORT NEWS CL	BIG BETHEL RD	1.26	15,721	2003	30,000	34,000	0	4	4	4	B	B	C	C	Moderate
HAM	HRC PARKWAY	BIG BETHEL RD	I-64	0.57	42,994	2003	50,000	61,000	4	4	4	4	C	D	D	D	Moderate
HAM	HRC PARKWAY	I-64	MAGRUDER BLVD	0.87	52,676	2003	43,000	50,000	4	4	4	4	C	D	C	C	Low to Moderate
HAM	HRC PARKWAY	MAGRUDER BLVD	COLISEUM DR	0.45	38,379	2003	33,000	37,000	4	4	4	4	F	F	D	D	Severe
HAM	HRC PARKWAY	COLISEUM DR	ARMISTEAD AVE	0.40	23,556	2001	31,000	29,000	4	4	4	4	C	C	D	D	Low to Moderate
HAM	KECOUGHTAN RD	NEWPORT N CL	POWHATAN PKWY	1.19	7,708	2003	8,000	7,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	KECOUGHTAN RD	POWHATAN PKWY	LA SALLE AVE	1.09	7,453	2001	8,000	8,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	KECOUGHTAN RD	LA SALLE AVE	VICTORIA BLVD	1.04	9,058	2003	10,000	9,000	4	4	4	4	D	D	D	D	Low to Moderate
HAM	KECOUGHTAN RD	VICTORIA BLVD	SETTLERS LANDING RD	0.28	13,288	2002	15,000	13,000	4	4	4	4	D	D	D	D	Low to Moderate
HAM	KING ST	PEMBROKE AVE	I-64 OVERPASS	0.29	9,062	2001	10,000	9,000	3	3	3	3	C	C	D	D	Low to Moderate
HAM	KING ST	I-64 OVERPASS	RIP RAP RD	0.45	9,062	2001	10,000	9,000	4	4	4	4	B	B	C	C	Low to Moderate
HAM	KING ST	RIP RAP RD	MERCURY BLVD	0.20	20,044	2003	21,000	19,000	4	4	4	4	C	D	C	D	Low to Moderate
HAM	KING ST	MERCURY BLVD	OLD FOX HILL RD	0.12	23,536	2003	24,000	25,000	4	4	4	4	D	D	D	D	Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
HAM	KING ST	OLD FOX HILL RD	LITTLE BACK RIVER RD	0.54	23,536	2003	24,000	28,000	4	4	4	4	D	D	D	D	Moderate
HAM	KING ST	LITTLE BACK RIVER RD	LAMINGTON RD	0.30	7,979	2003	8,000	7,000	4	4	4	4	A	A	A	A	Low to Moderate
HAM	KING ST	LAMINGTON RD	OLD BUCKINGHAM RD	0.49	7,979	2003	8,000	7,000	2	2	2	2	B	C	B	C	Low to Moderate
HAM	KING ST	OLD BUCKINGHAM RD	LANGLEY AFB	0.61	7,979	2003	8,000	7,000	3	3	3	3	B	C	B	C	Low to Moderate
HAM	LA SALLE AVE	KECOUGHTAN RD	VICTORIA BLVD	0.58	6,155	2003	7,000	16,000	2	2	2	2	A	B	B	B	Severe
HAM	LA SALLE AVE	VICTORIA BLVD	SETTLERS LANDING RD	0.68	15,848	2003	17,000	16,000	4	4	4	4	C	C	C	C	Severe
HAM	LA SALLE AVE	SETTLERS LANDING RD	PEMBROKE AVE	0.15	15,287	2001	17,000	15,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	LA SALLE AVE	PEMBROKE AVE	ARMISTEAD AVE	0.51	23,766	2003	21,000	21,000	4	4	4	4	D	D	D	D	Moderate
HAM	LA SALLE AVE	ARMISTEAD AVE	MERCURY BLVD	0.63	16,976	2003	17,000	12,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	LA SALLE AVE	MERCURY BLVD	LANGLEY GATE	1.46	15,669	2003	16,000	17,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	LITTLE BACK RIVER RD	KING ST	ROCKWELL RD	1.33	12,707	2003	16,000	21,000	2	2	2	**4**	E	E	F	F	Moderate
HAM	LITTLE BACK RIVER RD	ROCKWELL RD	HARRIS CREEK RD	0.67	5,314	2003	7,000	21,000	3	3	3	3	C	C	D	D	Moderate
HAM	MAGRUDER BLVD	YORK CO LINE	SEMPLE FARM RD	0.28	28,865	2003	30,000	29,000	4	4	4	4	C	C	C	E	Moderate
HAM	MAGRUDER BLVD	SEMPLE FARM RD	CMDR SHEPPARD BLVD	0.90	31,107	2002	33,000	38,000	4	4	4	**6**	F	F	F	F	Low to Moderate
HAM	MAGRUDER BLVD	CMDR SHEPPARD BLVD	HRC PARKWAY	1.38	34,812	2003	44,000	59,000	4	4	4	**6**	C	C	F	F	Severe
HAM	MAGRUDER BLVD	HRC PARKWAY	I-64	0.67	9,776	2002	32,000	34,000	4	4	4	4	B	B	C	C	Moderate
HAM	MALLORY ST	I-64	COUNTY ST	0.40	10,490	2003	11,000	14,000	2	2	2	2	E	D	F	D	Severe
HAM	MALLORY ST	COUNTY ST	MERCURY BLVD	0.23	10,490	2003	11,000	10,000	2	2	2	2	E	D	F	D	Moderate
HAM	MALLORY ST	MERCURY BLVD	PEMBROKE AVE	1.94	7,807	2003	8,000	9,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	MELLEN ST	MERCURY BLVD	MALLORY ST	0.70	5,927	2003	7,000	8,000	2	2	2	2	D	D	F	E	Severe
HAM	MERCURY BLVD	NEWPORT NEWS CL	ABERDEEN RD	2.04	49,507	2003	52,000	54,000	8	8	8	8	C	C	C	C	Low to Moderate
HAM	MERCURY BLVD	ABERDEEN RD	POWER PLANT PKWY	0.43	56,070	2001	66,000	59,000	8	8	8	8	D	D	D	D	Moderate
HAM	MERCURY BLVD	POWER PLANT PKWY	I-64	0.38	51,261	2003	72,000	59,000	8	8	8	8	B	B	C	C	Moderate
HAM	MERCURY BLVD	I-64	COLISEUM DR	0.35	51,279	2003	57,000	59,000	6	6	6	6	C	C	C	D	Severe
HAM	MERCURY BLVD	COLISEUM DR	CUNNINGHAM DR	0.42	40,496	2003	54,000	55,000	8	8	8	8	D	D	D	D	Moderate
HAM	MERCURY BLVD	CUNNINGHAM DR	ARMISTEAD AVE	0.24	44,783	2003	55,000	54,000	8	8	8	8	D	D	D	D	Moderate
HAM	MERCURY BLVD	ARMISTEAD AVE	LA SALLE AVE	0.70	56,318	2003	58,000	55,000	8	8	8	8	B	B	B	B	Low to Moderate
HAM	MERCURY BLVD	LA SALLE AVE	KING ST	0.82	64,403	2003	58,000	56,000	8	8	8	8	C	C	C	C	Low to Moderate
HAM	MERCURY BLVD	KING ST	FOX HILL RD	0.31	64,403	2003	54,000	41,000	6	6	6	6	D	F	D	D	Moderate
HAM	MERCURY BLVD	FOX HILL RD	ANDREWS BLVD	0.70	36,444	2003	37,000	30,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	MERCURY BLVD	ANDREWS BLVD	PEMBROKE AVE	0.55	18,099	2001	20,000	21,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	MERCURY BLVD	PEMBROKE AVE	WOODLAND RD	0.44	11,366	2003	12,000	7,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	MERCURY BLVD	WOODLAND RD	MALLORY ST	0.50	11,366	2003	12,000	13,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	MERCURY BLVD	MALLORY ST	MELLEN ST/INGALLS RD	0.78	5,628	2003	6,000	6,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	OLD BUCKROE RD	PEMBROKE AVE	FOX HILL RD	1.50	7,137	2003	7,000	8,000	2	2	2	2	C	B	C	B	Low to Moderate
HAM	PEMBROKE AVE	NEWPORT NEWS CL	ABERDEEN RD	0.33	9,250	2001	11,000	14,000	4	4	4	4	B	B	B	C	Low to Moderate
HAM	PEMBROKE AVE	ABERDEEN RD	POWHATAN PKWY	1.18	10,838	2003	11,000	11,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	PEMBROKE AVE	POWHATAN PKWY	SETTLERS LANDING RD	1.44	12,165	2003	14,000	16,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	PEMBROKE AVE	SETTLERS LANDING RD	LA SALLE AVE	0.17	10,999	2003	11,000	14,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	PEMBROKE AVE	LA SALLE AVE	ARMISTEAD AVE	0.71	7,854	2003	11,000	14,000	4	4	4	4	C	C	C	C	Low to Moderate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
HAM	PEMBROKE AVE	ARMISTEAD AVE	KING ST	0.27	10,052	2001	13,000	24,000	4	4	4	4	C	C	C	D	Moderate
HAM	PEMBROKE AVE	KING ST	EATON ST	0.14	10,052	2001	12,000	24,000	4	4	4	4	C	C	C	C	Moderate
HAM	PEMBROKE AVE	EATON ST	BARRON ST	0.40	10,052	2001	12,000	11,000	2	2	2	2	C	C	C	D	Low to Moderate
HAM	PEMBROKE AVE	BARRON ST	MERCURY BLVD	0.60	10,052	2001	12,000	12,000	3	3	3	3	C	C	C	D	Low to Moderate
HAM	PEMBROKE AVE	MERCURY BLVD	WOODLAND RD	0.19	7,906	2003	14,000	14,000	4	4	4	4	B	C	C	C	Low to Moderate
HAM	PEMBROKE AVE	WOODLAND RD	OLD BUCKROE RD	1.10	11,924	2003	15,000	17,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	PEMBROKE AVE	OLD BUCKROE RD	MALLORY ST	0.60	3,502	2003	4,000	5,000	2	2	2	2	B	B	B	B	Low to Moderate
HAM	POWER PLANT PKWY	I-664	BRIARFIELD RD	0.73	14,419	2002	18,000	13,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	POWER PLANT PKWY	BRIARFIELD RD	PINE CHAPEL RD	0.46	24,679	2003	31,000	19,000	4	4	4	4	C	C	D	F	Low to Moderate
HAM	POWER PLANT PKWY	PINE CHAPEL RD	MERCURY BLVD	0.71	11,860	2003	15,000	15,000	4	4	4	4	B	C	C	C	Low to Moderate
HAM	POWHATAN PKWY	KECOUGHTAN RD	PEMBROKE AVE	0.76	8,702	2003	9,000	8,000	2	2	2	2	D	D	D	D	Moderate
HAM	POWHATAN PKWY	PEMBROKE AVE	I-664	0.19	21,985	2002	22,000	22,000	4	4	4	4	D	D	D	D	Moderate
HAM	QUEEN ST	BRIARFIELD RD	MICHIGAN DR	1.27	14,015	2003	14,000	14,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	QUEEN ST	MICHIGAN DR	PEMBROKE AVE	0.09	14,015	2003	14,000	13,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	RIP RAP RD	ARMISTEAD AVE	I-64	0.20	10,084	2003	12,000	11,000	2	2	2	2	D	F	D	F	Severe
HAM	RIP RAP RD	I-64	KING ST	0.46	10,084	2003	15,000	15,000	2	2	2	2	D	E	E	F	Severe
HAM	ROANOKE AVE	NEWPORT NEWS CL	MERCURY BLVD	0.19	4,205	2003	4,000	5,000	2	2	2	2	C	C	C	C	Low to Moderate
HAM	SAUNDERS RD	NEWPORT NEWS CL	BIG BETHEL RD	0.72	12,009	2003	16,000	18,000	2	2	2	**4**	C	D	D	F	Low to Moderate
HAM	SEMPLE FARM RD	MAGRUDER BLVD	WYTHE CREEK RD	0.18	18,334	2002	21,000	24,000	3	3	**4**	4	F	F	D	D	Moderate
HAM	SETTLERS LANDING RD	PEMBROKE AVE	LA SALLE AVE	0.15	11,454	2002	12,000	10,000	4	4	4	4	B	B	B	C	Low to Moderate
HAM	SETTLERS LANDING RD	LA SALLE AVE	KECOUGHTAN RD	0.60	20,945	2003	21,000	16,000	4	4	4	4	D	D	D	D	Low to Moderate
HAM	SETTLERS LANDING RD	KECOUGHTAN RD	ARMISTEAD AVE	0.08	20,945	2003	21,000	23,000	4	4	4	4	D	D	D	D	Moderate
HAM	SETTLERS LANDING RD	ARMISTEAD AVE	TYLER ST	1.07	26,709	2003	29,000	26,000	4	4	4	4	B	C	C	D	Moderate
HAM	SETTLERS LANDING RD	TYLER ST	I-64	0.10	26,709	2003	29,000	22,000	4	4	4	4	B	C	C	D	Low to Moderate
HAM	TODDS LA	NEWPORT NEWS CL	BIG BETHEL RD	1.19	21,475	2003	22,000	28,000	4	4	4	4	C	C	C	C	Moderate
HAM	TODDS LA	BIG BETHEL RD	ABERDEEN RD	0.98	22,282	2001	22,000	23,000	4	4	4	4	C	D	C	D	Moderate
HAM	TODDS LA	ABERDEEN RD	CUNNINGHAM DR	0.30	26,892	2001	27,000	26,000	4	4	4	4	C	D	C	D	Moderate
HAM	TODDS LA	CUNNINGHAM DR	MERCURY BLVD	0.18	15,057	2003	16,000	16,000	4	4	4	4	C	C	C	C	Low to Moderate
HAM	WOODLAND RD	I-64	COUNTY ST	0.22	19,003	2001	20,000	25,000	4	4	4	4	D	D	D	D	Moderate
HAM	WOODLAND RD	COUNTY ST	MERCURY BLVD	0.38	23,659	2003	25,000	17,000	4	4	4	4	D	D	E	D	Low to Moderate
HAM	WOODLAND RD	MERCURY BLVD	PEMBROKE AVE	0.45	14,567	2001	16,000	15,000	4	4	4	4	D	C	D	C	Low to Moderate
HAM	WOODLAND RD	PEMBROKE AVE	FOX HILL RD	1.82	10,520	2003	11,000	16,000	4	4	4	4	B	B	B	B	Low to Moderate
HAM	WYTHE CREEK RD	ARMISTEAD AVE	POQUOSON CL	1.00	16,714	2002	18,000	24,000	2	2	2	2	F	F	F	F	Severe
IW/SMT	BATTERY PARK RD	S CHURCH ST	NIKE PARK RD	1.33	8,654	2002	11,000	7,000	2	2	2	**4**	C	D	D	D	Low to Moderate
IW	BATTERY PARK RD	NIKE PARK RD	COUNTRY WAY	1.17	3,811	2002	5,000	4,000	2	2	2	2	C	C	C	C	Low to Moderate
IW	BENNS CHURCH BLVD	SUFFOLK CL	RIDDICK RD	2.07	10,899	2002	15,000	15,000	4	4	4	4	A	A	A	A	Low to Moderate
IW	BENNS CHURCH BLVD	RIDDICK RD	RTE 10 & 32 (BREWERS NECK RD)	2.08	10,899	2002	15,000	15,000	4	4	4	4	A	A	A	A	Low to Moderate
IW	BENNS CHURCH BLVD	RTE 10 & 32 (BREWERS NECK RD)	ECL SMITHFIELD (RTE 644)	1.00	24,249	2002	27,000	30,000	4	4	4	4	B	B	B	B	Moderate
IW/SMT	BENNS CHURCH BLVD	ECL SMITHFIELD (RTE 644)	CHURCH ST S	0.96	26,681	2002	28,000	33,000	4	4	4	4	C	C	C	C	Severe
IW	BREWER'S NECK BLVD	RTE 10 & 32 (BENN'S CHURCH)	RTE 670	1.82	21,801	2002	25,000	29,000	4	4	4	4	A	B	B	B	Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
IW	BREWER'S NECK BLVD	RTE 670	RTE 17	1.03	21,801	2002	25,000	28,000	4	4	4	4	B	B	B	B	Moderate
IW	BUS RTE 10	NCL SMITHFIELD	JENKINS LANE	0.87	1,867	2002	2,000	6,000	2	2	2	2	B	B	B	B	Low to Moderate
IW	BUS RTE 10	JENKINS LANE	RT 10 BYPASS	2.05	1,867	2002	2,000	3,000	2	2	2	2	B	B	B	B	Low to Moderate
IW	BUS RTE 58/RTE 258	FRANKLIN CL	JAMESTOWN LN (RTE 691)	0.33	8,508	2002	9,000	15,000	4	4	4	4	B	B	B	B	Severe
IW	BUS RTE 58/RTE 258	JAMESTOWN LN (RTE 691)	RTE 258	1.19	8,508	2002	9,000	15,000	2	2	2	2	C	C	C	C	Severe
IW	BUS RTE 58	RTE 258	SUFFOLK CL	5.20	3,212	2002	3,000	5,000	2	2	2	2	B	B	B	B	Low to Moderate
IW	CARROLLTON BLVD	SUFFOLK CL	WEST END CHUCKATUCK BRIDGE	0.60	11,991	2002	16,000	23,000	2	2	2	2	D	D	E	E	Severe
IW	CARROLLTON BLVD	WEST END CHUCKATUCK BRIDGE	RTE 258	1.83	11,991	2002	16,000	23,000	4	4	4	4	A	A	A	A	Low to Moderate
IW	CARROLLTON BLVD/JAMES RIVER BR	RTE 258	NEWPORT NEWS CL	4.54	27,513	2003	31,000	42,000	4	4	4	4	C	C	C	C	Moderate
IW/SMT	CHURCH ST S	RTE 10 BYPASS	BATTERY PARK RD	0.85	15,004	2002	16,000	17,000	4	4	4	4	B	B	B	B	Low to Moderate
IW/SMT	CHURCH ST S	BATTERY PARK RD	CYPRESS CREEK BRIDGE	1.00	13,571	2002	14,000	14,000	2	2	2	2	B	B	B	B	Moderate
IW/SMT	CHURCH ST S	CYPRESS CREEK BRIDGE	MAIN ST	0.58	13,742	2002	14,000	13,000	2	2	2	2	C	C	C	C	Moderate
IW/SMT	CHURCH ST N	MAIN ST	SMITHFIELD CL	1.28	9,958	2002	11,000	11,000	2	2	2	2	C	C	C	C	Severe
IW/SMT	MAIN ST	RTE 10 BYPASS	CHURCH ST	0.64	5,666	2002	6,000	10,000	2	2	2	2	B	C	B	C	Low to Moderate
IW	NIKE PARK RD	TITUS CREEK DR	BATTERY PARK RD	1.55	7,439	2001	9,000	10,000	2	2	2	2	D	D	D	D	Moderate
IW	RESCUE RD	NEWPORT ST (RTE 1002)	SMITH'S NECK RD	1.30	826	2002	1,000	1,000	2	2	2	2	B	B	B	B	Low to Moderate
IW	ROUTE 10 (OLD STAGE HWY)	BUS RTE 10	IW/SURRY CL	4.20	7,222	2002	9,000	13,000	2	2	2	2	D	C	D	D	Moderate
IW/SMT	ROUTE 10 BYPASS	CHURCH ST S	FAIRWAY DR	1.55	15,222	2002	17,000	17,000	2	2	2	2	D	D	E	E	Severe
IW/SMT	ROUTE 10 BYPASS	FAIRWAY DR	MAIN ST	0.75	15,222	2002	17,000	17,000	2	2	2	2	D	D	E	E	Severe
IW/SMT	ROUTE 10 BYPASS	MAIN ST	NCL SMITHFIELD	0.78	10,159	2002	11,000	16,000	2	2	2	2	D	D	D	D	Severe
IW	ROUTE 10 BYPASS	NCL SMITHFIELD	BUS RTE 10	2.96	6,665	2002	8,000	16,000	2	2	2	2	C	C	D	D	Moderate
IW	ROUTE 258	SUFFOLK CL	UNION CAMP DR (RTE 656)	1.54	4,000	2003	4,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
IW	ROUTE 258	UNION CAMP DR (RTE 656)	CARRSVILLE HWY (BUS RTE 58)	1.31	4,000	2003	4,000	7,000	0	2	2	2	B	C	B	C	Low to Moderate
IW	ROUTE 258	CARRSVILLE HWY (BUS RTE 58)	BURDETTE RD (W RTE 619)	5.60	4,138	2002	5,000	7,000	2	2	2	2	B	B	B	C	Low to Moderate
IW	ROUTE 258	BURDETTE RD (W RTE 619)	RIVER RUN TRAIL (W RTE 614)	1.25	4,138	2002	5,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
IW	ROUTE 258	RIVER RUN TRAIL (W RTE 614)	BLACKWATER RD (RTE 603)	5.77	4,862	2002	5,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
IW	ROUTE 258	BLACKWATER RD (RTE 603)	WCL WINDSOR	0.08	4,569	2002	5,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
IW/WIND	ROUTE 258	WCL WINDSOR	RTE 460	0.15	4,569	2002	5,000	8,000	2	2	2	2	C	C	C	C	Low to Moderate
IW/WIND	ROUTE 258	RTE 460	ECL WINDSOR	0.25	4,898	2002	6,000	17,000	2	2	2	2	C	C	C	D	Severe
IW	ROUTE 258	ECL WINDSOR	COURT ST NORTH (RTE 610)	0.59	4,898	2002	5,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
IW	ROUTE 258	COURT ST NORTH (RTE 610)	IRON MINE SPRINGS RD (RTE 605)	4.27	4,648	2002	5,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
IW	ROUTE 258	IRON MINE SPRINGS RD (RTE 605)	CENTRAL HILL RD (W RTE 637)	2.28	4,648	2002	5,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
IW	ROUTE 258	CENTRAL HILL RD (W RTE 637)	SCOTTS FACTORY RD (RTE 620)	5.20	5,171	2002	6,000	5,000	2	2	2	2	C	C	C	C	Low to Moderate
IW	ROUTE 258	RTE 620 (SCOTTS FACTORY RD)	WCL SMITHFIELD	1.04	5,171	2002	6,000	5,000	2	2	2	2	C	C	C	C	Low to Moderate
IW/SMT	ROUTE 258/MAIN ST	WCL SMITHFIELD	RTE 10 BYPASS	0.76	12,892	2002	13,000	16,000	2	2	2	2	D	D	D	D	Severe
IW	ROUTE 460	SOUTHAMPTON CL	FIRETOWER RD (RTE 644)	0.54	11,754	2002	18,000	19,000	4	4	4	4	A	A	B	B	Low to Moderate
IW	ROUTE 460	FIRETOWER RD (RTE 644)	WCL WINDSOR	5.56	11,754	2002	18,000	19,000	4	4	4	4	A	A	B	B	Low to Moderate
IW/WIND	ROUTE 460	WCL WINDSOR	RTE 258	0.08	11,754	2002	18,000	20,000	4	4	4	4	A	A	B	B	Low to Moderate
IW/WIND	ROUTE 460	RTE 258	COURT ST (RTE 610)	0.46	13,097	2002	18,000	10,000	4	4	4	4	C	C	C	C	Low to Moderate
IW	ROUTE 460	COURT ST (RTE 610)	ECL WINDSOR	0.75	14,531	2002	18,000	10,000	4	4	4	4	C	C	C	C	Low to Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
IW	ROUTE 460	ECL WINDSOR	SUFFOLK CL	2.35	14,531	2002	18,000	10,000	4	4	4	4	B	B	B	B	Low to Moderate
IW	SMITHFIELD CONNECTOR	NIKE PARK RD	SMITH'S NECK RD	0.75	DNE			8,000	0	0	0	**4**	-	-	-	-	Low to Moderate
IW	SMITH'S NECK RD	CARROLLTON BLVD	REYNOLDS DR	0.72	8,834	2001	12,000	15,000	2	2	2	2	D	D	E	E	Severe
IW	SMITH'S NECK RD	REYNOLDS DR	TITUS CREEK DR	1.03	6,990	2002	9,000	7,000	2	2	2	2	E	D	E	E	Moderate
IW	SMITH'S NECK RD	TITUS CREEK DR	RESCUE RD	2.10	1,455	2002	2,000	2,000	2	2	2	2	B	B	C	C	Low to Moderate
IW	TITUS CREEK DR	SMITH'S NECK RD	NIKE PARK RD	0.92	3,000	2003	5,000	10,000	2	2	2	2	C	C	C	C	Low to Moderate
IW	TODD AVE/WARWICK ST	COUNTRY WAY	NEWPORT ST (RTE 1002)	0.57	1,053	2002	3,000	3,000	2	2	2	2	B	B	C	C	Low to Moderate
JCC	BARHAMSVILLE RD	I-64	RTE 60	1.71	7,274	2001	8,000	13,000	4	4	4	4	A	A	A	A	Low to Moderate
JCC	CENTERVILLE RD	JOHN TYLER HWY	MONTICELLO AVE	0.50	4,844	2003	6,000	6,000	2	2	2	2	C	C	C	C	Low to Moderate
JCC	CENTERVILLE RD	MONTICELLO AVE	NEWS RD	1.62	4,844	2003	6,000	5,000	2	2	2	2	C	C	C	C	Low to Moderate
JCC	CENTERVILLE RD	NEWS RD	LONGHILL RD	2.85	5,073	2003	6,000	9,000	2	2	2	2	B	B	B	C	Low to Moderate
JCC	CENTERVILLE RD	LONGHILL RD	RICHMOND RD	3.11	9,279	2003	10,000	12,000	2	2	2	2	C	C	C	C	Moderate
JCC	COLONIAL NATL HIST PKWY	JAMESTOWN/RTE 359	NCL WMSBRG/RTE 199	8.70	5,881	2001	6,000	3,000	2	2	2	2	C	D	C	D	Low to Moderate
JCC	CROAKER RD	RTE 60	RTE 760 (MAXTON LN)	0.73	8,434	2003	9,000	10,000	2	2	2	2	C	C	C	C	Low to Moderate
JCC	CROAKER RD	RTE 760 (MAXTON LN)	I-64	0.45	8,722	2003	9,000	15,000	4	4	4	4	A	A	A	A	Low to Moderate
JCC	CROAKER RD	I-64	FENTON MILL RD	0.41	3,564	2003	7,000	14,000	4	4	4	4	A	A	A	A	Low to Moderate
JCC	CROAKER RD	FENTON MILL RD	RIVERVIEW RD	0.73	3,564	2003	6,000	11,000	2	2	2	2	C	C	C	C	Low to Moderate
JCC	IRONBOUND RD	MONTICELLO AVE	WILLIAMSBURG CL	0.76	10,860	2003	12,000	10,000	2	2	2	**4**	B	B	B	B	Low to Moderate
JCC	IRONBOUND RD/NEWS RD	JOHN TYLER HWY	MONTICELLO AVE	1.36	11,183	2003	12,000	15,000	2	2	2	2	B	B	B	B	Moderate
JCC	IRONBOUND RD/SANDY BAY RD	JAMESTOWN RD	JOHN TYLER HWY	0.98	8,336	2003	9,000	8,000	2	2	2	2	B	B	B	B	Low to Moderate
JCC	JAMESTOWN RD	JAMES RIVER	COLONIAL PARKWAY (RTE 359)	0.37	2,489	2000	8,000	9,000	2	2	2	2	B	B	B	B	Low to Moderate
JCC	JAMESTOWN RD	COLONIAL PARKWAY (RTE 359)	SANDY BAY RD (RTE 681)	1.46	7,242	2003	8,000	9,000	2	2	2	2	B	B	B	B	Low to Moderate
JCC	JAMESTOWN RD	SANDY BAY RD (RTE 681)	NECK-O-LAND RD	0.88	8,954	2003	10,000	9,000	2	2	2	2	C	C	C	C	Low to Moderate
JCC	JAMESTOWN RD	NECK-O-LAND RD	WILLIAMSBURG CL	1.46	15,466	2003	19,000	9,000	2	2	2	2	C	D	D	D	Low to Moderate
JCC	JOHN TYLER HWY	CHARLES CITY CL	MONTICELLO AVE	1.50	9,090	2001	10,000	7,000	2	2	2	2	D	C	D	D	Low to Moderate
JCC	JOHN TYLER HWY	MONTICELLO AVE	CENTERVILLE RD (RTE 614N)	2.70	3,699	2003	4,000	6,000	2	2	2	2	C	C	C	C	Low to Moderate
JCC	JOHN TYLER HWY	CENTERVILLE RD (RTE 614 N)	IRONBOUND RD (RTE 615)	2.10	10,821	2003	11,000	14,000	2	2	2	2	D	D	D	D	Moderate
JCC	JOHN TYLER HWY	IRONBOUND RD (RTE 615)	RTE 712 (STANLEY DR)	1.56	11,808	2003	13,000	17,000	2	2	2	2	C	C	C	C	Severe
JCC	JOHN TYLER HWY	RTE 712 (STANLEY DR)	RTE 199	0.23	13,364	2003	15,000	17,000	4	4	4	4	D	D	D	D	Severe
JCC	LONGHILL CONNECTOR RD	LONGHILL RD (RTE 612)	IRONBOUND RD	0.85	6,037	2003	10,000	20,000	2	2	2	**4**	B	B	B	B	Low to Moderate
JCC	LONGHILL RD	CENTERVILLE RD (RTE 614)	OLDE TOWNE RD (RTE 658)	2.39	16,937	2003	19,000	15,000	2	2	2	2	D	D	D	D	Moderate
JCC	LONGHILL RD	OLDE TOWNE RD (RTE 658)	RTE 199	0.66	24,259	2003	26,000	15,000	2	2	2	2	E	F	F	F	Moderate
JCC	LONGHILL RD	RTE 199	LONGHILL CONNECTOR RD	0.30	16,843	2001	19,000	24,000	4	4	4	4	C	C	C	C	Moderate
JCC	MERRIMAC TRL	NEWPORT NEWS CL	YORK CL (SOUTH OF GROVE INT)	2.44	13,084	2001	16,000	7,000	4	4	4	4	A	B	A	B	Low to Moderate
JCC	MERRIMAC TRL	YORK CL @ 199	PENNIMAN RD (YORK CL)	1.12	19,332	2001	22,000	19,000	4	4	4	4	A	A	A	A	Low to Moderate
JCC	MONTICELLO AVE	JOHN TYLER HWY	CENTERVILLE RD (RTE 614)	1.08	4,277	2003	6,000	10,000	0	**2**	2	2	A	A	B	B	Low to Moderate
JCC	MONTICELLO AVE	CENTERVILLE RD (RTE 614)	NEWS RD	2.65	8,738	2003	11,000	14,000	0	**2**	2	2	B	B	C	C	Moderate
JCC	MONTICELLO AVE	NEWS RD	RTE 199	0.57	33,982	2003	35,000	29,000	4	4	4	4	C	D	C	D	Moderate
JCC	MONTICELLO AVE	RTE 199	IRONBOUND RD (RTE 615)	0.82	19,927	2003	21,000	25,000	4	4	4	4	B	B	B	B	Moderate
JCC	OLD STAGE RD	NEW KENT CL	RTE 601 S (BARNES RD)	1.29	7,887	2001	8,000	10,000	2	2	2	2	C	C	C	C	Low to Moderate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
JCC	OLD STAGE RD	RTE 601 S (BARNES RD)	I-64	0.84	7,887	2001	8,000	16,000	4	4	4	4	A	A	A	A	Low to Moderate
JCC	OLDE TOWNE RD	LONGHILL RD	RICHMOND RD	1.40	10,472	2003	12,000	13,000	2	2	2	2	B	B	B	C	Moderate
JCC	POCAHONTAS TRL	ECL WLMBG	YORK CL @ 199	1.38	19,301	2001	22,000	25,000	4	4	4	4	A	A	A	A	Low to Moderate
JCC	POCAHONTAS TRL	YORK CL	BASF RD/ROUTE 60 RELOCATION	3.10	12,625	2003	14,000	16,000	2	2	2	2	C	C	C	D	Moderate
JCC	POCAHONTAS TRL	BASF RD/ROUTE 60 RELOCATION	NEWPORT NEWS CL	0.90	9,244	2003	13,000	6,000	2	2	2	2	C	C	C	C	Low to Moderate
JCC	RELOCATED RTE 60	RTE 60	NEWPORT NEWS CL	2.20	DNE			16,000	0	0	0	**4**	-	-	-	-	Low to Moderate
JCC	RICHMOND RD	RTE 199	OLDE TOWNE RD (RTE 658)	1.92	17,041	2003	19,000	31,000	4	4	4	4	A	A	B	B	Moderate
JCC	RICHMOND RD	OLDE TOWNE RD (RTE 658)	NCL WLMBG	0.48	22,175	2003	25,000	31,000	4	4	4	4	C	C	C	C	Moderate
JCC	RTE 199	JOHN TYLER HWY (RTE 5)	WCL WLMBG	0.23	29,427	2001	31,000	41,000	4	4	4	4	D	E	D	E	Severe
JCC	RTE 199	ECL WLMBG	HENRY ST/COLONIAL PKWY	1.73	29,353	2001	33,000	44,000	2	2	**4**	4	F	F	A	B	Severe
JCC	RTE 199	HENRY ST/COLONIAL PKWY	RTE 60/RTE 143/YORK CL	2.14	28,732	2001	31,000	46,000	2	2	**4**	4	E	E	B	B	Severe
JCC	RTE 60	NEW KENT CL	RTE 30	5.05	5,816	2003	6,000	7,000	4	4	4	4	A	A	A	A	Low to Moderate
JCC	RTE 60	RTE 30	CROAKER RD (RTE 607)	3.17	18,184	2003	15,000	22,000	4	4	4	4	A	B	A	B	Low to Moderate
JCC	RTE 60	CROAKER RD (RTE 607)	CENTERVILLE RD (RTE 614)	2.70	18,828	2003	20,000	29,000	4	4	4	4	A	A	A	A	Moderate
JCC	RTE 60	CENTERVILLE RD (RTE 614)	RTE 199	0.28	28,372	2003	25,000	31,000	4	4	4	4	C	D	C	D	Moderate
NN	23RD/25TH CONNECTOR	HUNTINGTON AVE	JEFFERSON AVE	0.36	2,080	2001	3,000	12,000	2	2	2	2	B	B	B	B	Low to Moderate
NN	25TH ST	JEFFERSON AVE	26TH ST	1.37	3,298	2003	4,000	4,000	2	2	2	2	C	C	C	C	Low to Moderate
NN	25TH ST	26TH ST	HAMPTON C L	0.46	6,484	2003	8,000	7,000	2	2	2	2	B	B	B	B	Low to Moderate
NN	26TH ST	25TH ST	ROANOKE AVE	0.67	1,667	2003	2,000	1,000	2	2	2	2	C	C	C	C	Low to Moderate
NN	26TH ST	ROANOKE AVE	JEFFERSON AVE	0.74	2,937	2003	3,000	4,000	2	2	2	2	C	C	C	C	Low to Moderate
NN	26TH ST	JEFFERSON AVE	WARWICK BLVD	0.34	5,398	2003	6,000	8,000	2	2	2	2	C	C	C	C	Low to Moderate
NN	26TH ST	WARWICK BLVD	HUNTINGTON AVE	0.13	5,398	2003	6,000	8,000	2	2	2	2	C	C	C	C	Low to Moderate
NN	39TH ST	HUNTINGTON AVE	MADISON AVE	0.63	4,946	2003	5,000	6,000	2	2	2	2	C	C	C	C	Low to Moderate
NN	39TH ST	MADISON AVE	HAMPTON C L	1.00	9,031	2003	11,000	9,000	4	4	4	4	B	B	B	C	Low to Moderate
NN	ATKINSON BLVD	WARWICK BLVD	JEFFERSON AVE	1.19	DNE			29,000	0	0	0	**4**	-	-	-	-	Moderate
NN	BLAND BLVD	WARWICK BLVD	I-64	0.54	29,379	2003	31,000	57,000	4	4	4	4	C	C	C	C	Severe
NN	BLAND BLVD	I-64	JEFFERSON AVE	0.40	29,379	2003	31,000	14,000	4	4	4	4	C	C	C	C	Low to Moderate
NN	BLAND BLVD	JEFFERSON AVE	McMANUS BLVD	0.48	17,576	2003	22,000	25,000	4	4	4	4	C	C	C	D	Moderate
NN	BRIARFIELD RD	HAMPTON CL	JEFFERSON AVE	1.17	10,828	2003	11,000	11,000	2	2	2	2	D	D	D	D	Moderate
NN	BUXTON AVE	HAMPTON CL	25TH ST	0.52	11,716	2003	13,000	11,000	2	2	2	2	D	D	D	D	Moderate
NN	CENTER AVE	WARWICK BLVD	JEFFERSON AVE	0.35	4,470	2003	6,000	6,000	2	2	2	2	C	C	C	C	Low to Moderate
NN	CHESTNUT AVE	39TH ST	44TH ST	0.20	8,531	2003	9,000	10,000	4	4	4	4	D	D	D	D	Moderate
NN	CHESTNUT AVE	44TH ST	BRIARFIELD RD	0.90	8,531	2003	9,000	9,000	2	2	2	2	C	D	C	D	Moderate
NN	CHESTNUT AVE	BRIARFIELD RD	HAMPTON CL	1.00	8,835	2003	9,000	7,000	4	4	4	4	A	A	A	A	Low to Moderate
NN	DENBIGH BLVD	LUCAS CREEK RD	WARWICK BLVD	0.51	20,788	2003	22,000	23,000	4	4	4	4	D	D	E	D	Moderate
NN	DENBIGH BLVD	WARWICK BLVD	JEFFERSON AVE	1.15	36,879	2003	38,000	33,000	4	4	4	4	C	D	C	D	Moderate
NN	DENBIGH BLVD	JEFFERSON AVE	YORK CL	1.32	27,312	2003	29,000	38,000	4	4	4	4	C	D	C	D	Severe
NN	FORT EUSTIS BLVD	WARWICK BLVD	I-64	0.82	38,945	2003	40,000	29,000	4	4	4	4	F	F	F	F	Moderate
NN	FORT EUSTIS BLVD	I-64	JEFFERSON AVE	0.16	38,945	2003	40,000	33,000	4	4	4	4	F	F	F	F	Moderate
NN	FORT EUSTIS BLVD	JEFFERSON AVE	.54 MILES EAST OF RTE 143	0.54	16,997	2003	19,000	29,000	4	4	4	4	C	C	C	C	Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
NN	FORT EUSTIS BLVD	.54 MILES EAST OF RTE 143	YORK C L	0.74	16,997	2003	19,000	21,000	2	2	2	2	E	D	F	F	Severe
NN	HRC PARKWAY	HAMPTON CL	HARPERSVILLE RD	0.63	15,590	2003	30,000	34,000	0	4	4	4	A	B	B	C	Moderate
NN	HARPERSVILLE RD	J CLYDE MORRIS BLVD	SAUNDERS RD	0.54	12,878	2003	14,000	15,000	2	2	2	2	C	C	D	D	Severe
NN	HARPERSVILLE RD	SAUNDERS RD	HRC PARKWAY	2.33	14,018	2003	16,000	12,000	2	2	2	2	C	C	C	D	Low to Moderate
NN	HARPERSVILLE RD	HRC PARKWAY	JEFFERSON AVE	0.44	21,391	2003	46,000	38,000	2	6	6	6	B	B	C	D	Low to Moderate
NN	HARPERSVILLE RD	JEFFERSON AVE	WARWICK BLVD	0.89	13,198	2003	20,000	24,000	2	2	2	4	E	D	F	F	Severe
NN	HUNTINGTON AVE	71ST ST	39TH ST	1.78	12,671	2003	14,000	14,000	3	3	3	3	C	C	C	C	Low to Moderate
NN	HUNTINGTON AVE	39TH ST	23RD ST	0.78	7,409	2003	8,000	10,000	3	3	3	3	C	C	C	C	Low to Moderate
NN	J CLYDE MORRIS BLVD	WARWICK BLVD	JEFFERSON AVE	1.12	38,271	2003	43,000	41,000	4	4	4	4	C	C	D	D	Moderate
NN	J CLYDE MORRIS BLVD	JEFFERSON AVE	I-64	1.53	47,496	2003	50,000	50,000	6	6	6	6	B	C	C	C	Low to Moderate
NN	J CLYDE MORRIS BLVD	I-64	HARPERSVILLE RD	0.60	41,480	2003	44,000	51,000	4	4	4	4	F	F	F	F	Severe
NN	J CLYDE MORRIS BLVD	HARPERSVILLE RD	YORK CO LINE	0.19	33,903	2003	36,000	42,000	4	4	4	4	D	D	E	D	Severe
NN	JEFFERSON AVE	JAMES CITY CL	YORKTOWN RD	1.14	13,524	2003	16,000	11,000	4	4	4	4	B	B	B	B	Low to Moderate
NN	JEFFERSON AVE	YORKTOWN RD	FT EUSTIS BLVD	2.50	10,571	2003	13,000	15,000	4	4	4	4	A	B	B	B	Low to Moderate
NN	JEFFERSON AVE	FT EUSTIS BLVD	ATKINSON BLVD	1.34	23,013	2003	29,000	35,000	4	4	4	6	C	C	D	C	Low to Moderate
NN	JEFFERSON AVE	ATKINSON BLVD	DENBIGH BLVD	1.68	30,667	2003	41,000	48,000	4	4	6	6	C	C	C	C	Moderate
NN	JEFFERSON AVE	DENBIGH BLVD	BLAND BLVD	0.87	58,750	2003	61,000	64,000	6	6	6	6	C	E	D	F	Severe
NN	JEFFERSON AVE	BLAND BLVD	I-64	0.92	67,896	2003	72,000	49,000	6	6	6	6	D	F	F	F	Moderate
NN	JEFFERSON AVE	I-64	OYSTER POINT RD	0.95	58,505	2003	64,000	67,000	6	6	6	6	D	E	E	F	Severe
NN	JEFFERSON AVE	OYSTER POINT RD	MUELLER LA	0.83	57,350	2003	64,000	60,000	6	6	6	6	D	E	E	F	Severe
NN	JEFFERSON AVE	MUELLER LA	MIDDLE GROUND BLVD	0.45	57,350	2003	64,000	60,000	6	6	6	6	D	E	E	F	Severe
NN	JEFFERSON AVE	MIDDLE GROUND BLVD	J CLYDE MORRIS BLVD	1.10	55,288	2003	63,000	66,000	6	6	6	6	D	D	E	F	Severe
NN	JEFFERSON AVE	J CLYDE MORRIS BLVD	HARPERSVILLE RD	1.12	56,897	2003	64,000	58,000	6	6	6	6	C	E	D	F	Severe
NN	JEFFERSON AVE	HARPERSVILLE RD	MAIN ST	1.67	58,865	2003	64,000	52,000	6	6	6	6	D	E	E	F	Moderate
NN	JEFFERSON AVE	MAIN ST	CENTER AVE	0.72	46,429	2003	48,000	41,000	6	6	6	6	C	D	C	D	Moderate
NN	JEFFERSON AVE	CENTER AVE	MERCURY BLVD	0.61	45,684	2003	47,000	36,000	6	6	6	6	C	D	C	D	Low to Moderate
NN	JEFFERSON AVE	MERCURY BLVD	BRIARFIELD RD	1.06	36,618	2003	37,000	36,000	6	6	6	6	B	B	B	B	Low to Moderate
NN	JEFFERSON AVE	BRIARFIELD RD	41ST ST	1.08	34,018	2003	34,000	31,000	6	6	6	6	B	B	B	B	Moderate
NN	JEFFERSON AVE	41ST ST	35TH ST	0.25	15,026	2003	17,000	19,000	4	4	4	4	C	C	C	C	Low to Moderate
NN	JEFFERSON AVE	35TH ST	25TH ST	0.54	15,026	2003	17,000	10,000	2	2	2	2	F	F	F	F	Low to Moderate
NN	MAIN ST	WARWICK BLVD	JEFFERSON AVE	0.42	14,823	2003	17,000	22,000	4	4	4	4	C	C	C	C	Low to Moderate
NN	MAIN ST	JEFFERSON AVE	HAMPTON C L	0.56	20,524	2003	22,000	14,000	4	4	4	4	C	C	C	C	Low to Moderate
NN	MERCURY BLVD	HAMPTON C L	JEFFERSON AVE	0.25	43,704	2003	47,000	44,000	6	6	6	6	D	D	D	E	Moderate
NN	MERCURY BLVD	JEFFERSON AVE	WARWICK BLVD	0.34	38,513	2003	40,000	40,000	6	6	6	6	D	D	D	D	Moderate
NN	MERCURY BLVD	WARWICK BLVD	RIVER RD	0.23	25,785	2003	29,000	40,000	4	4	4	4	E	D	F	E	Severe
NN	MERCURY BLVD/JAMES RIVER BR	RIVER RD	ISLE OF WIGHT C L	2.18	27,513	2003	31,000	42,000	4	4	4	4	C	C	C	C	Low to Moderate
NN	MIDDLE GROUND BLVD	WARWICK BLVD	JEFFERSON AVE	0.95	DNE			21,000	0	0	0	4	-	-	-	-	Low to Moderate
NN	OYSTER POINT RD	WARWICK BLVD	JEFFERSON AVE	1.04	46,330	2003	50,000	38,000	4	4	4	4	F	F	F	F	Severe
NN	OYSTER POINT RD	JEFFERSON AVE	I-64	1.11	49,507	2003	51,000	62,000	6	6	6	6	C	C	C	C	Severe
NN	RICHNECK RD	DENBIGH BLVD	JEFFERSON AVE	0.97	3,859	2003	5,000	4,000	2	2	2	2	C	C	C	C	Low to Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
NN	RICHNECK RD	JEFFERSON AVE	YORK CL	1.53	8,138	2003	10,000	12,000	2	2	2	2	D	D	D	D	Severe
NN	ROANOKE AVE	I-664	43RD ST	0.20	3,409	2003	4,000	4,000	4	4	4	4	C	C	C	C	Low to Moderate
NN	ROANOKE AVE	43RD ST	BRIARFIELD RD	1.00	3,409	2003	4,000	4,000	2	2	2	2	C	C	C	C	Low to Moderate
NN	ROANOKE AVE	BRIARFIELD RD	HAMPTON CL	0.90	4,205	2003	4,000	5,000	2	2	2	2	C	C	C	C	Low to Moderate
NN	SAUNDERS RD	HARPERSVILLE RD	HAMPTON C L	0.84	10,318	2003	14,000	16,000	2	2	2	2	C	C	C	F	Severe
NN	VICTORY BLVD	I-64	YORK CL	0.51	52,524	2003	60,000	63,000	6	6	6	6	D	D	D	E	Severe
NN	ROUTE 60 RELOCATED	JAMES CITY CL	FT EUSTIS BLVD	1.19	DNE			16,000	0	0	0	**4**	-	-	-	-	Low to Moderate
NN	WARWICK BLVD	JAMES CITY CL	YORKTOWN RD	1.69	14,384	2003	18,000	7,000	2	2	2	2	D	D	D	D	Low to Moderate
NN	WARWICK BLVD	YORKTOWN RD	FT EUSTIS BLVD	1.44	16,331	2003	20,000	18,000	2	2	2	2	D	D	D	F	Moderate
NN	WARWICK BLVD	FT EUSTIS BLVD	SNIDOW BLVD	1.86	38,434	2003	43,000	44,000	4	4	4	4	E	F	E	F	Severe
NN	WARWICK BLVD	SNIDOW BLVD	DENBIGH BLVD	1.66	47,554	2003	50,000	42,000	4	4	4	4	F	F	F	F	Severe
NN	WARWICK BLVD	DENBIGH BLVD	BLAND BLVD	0.84	39,322	2003	43,000	55,000	4	4	4	4	D	D	E	E	Severe
NN	WARWICK BLVD	BLAND BLVD	OYSTER POINT RD	1.39	44,912	2003	48,000	51,000	4	4	4	4	D	F	D	F	Severe
NN	WARWICK BLVD	OYSTER POINT RD	MIDDLE GROUND BLVD	1.31	34,219	2003	35,000	38,000	4	4	4	4	C	C	C	C	Severe
NN	WARWICK BLVD	MIDDLE GROUND BLVD	DEEP CREEK RD	0.55	38,313	2003	39,000	58,000	4	4	4	4	C	D	D	E	Severe
NN	WARWICK BLVD	DEEP CREEK RD	J C MORRIS BLVD	1.43	50,025	2003	55,000	54,000	4	4	**6**	6	F	F	E	F	Severe
NN	WARWICK BLVD	J C MORRIS BLVD	HARPERSVILLE RD	1.07	34,109	2003	36,000	50,000	5	5	5	5	C	E	D	F	Severe
NN	WARWICK BLVD	HARPERSVILLE RD	MAIN ST	1.49	38,981	2003	41,000	45,000	4	4	4	4	D	F	D	F	Severe
NN	WARWICK BLVD	MAIN ST	CENTER AVE	0.69	29,028	2003	30,000	29,000	4	4	4	4	C	D	C	D	Moderate
NN	WARWICK BLVD	CENTER AVE	MERCURY BLVD	0.50	31,694	2003	33,000	35,000	6	6	6	6	D	D	D	D	Moderate
NN	WARWICK BLVD	MERCURY BLVD	HUNTINGTON AVE	0.50	30,991	2003	32,000	29,000	6	6	6	6	F	F	F	F	Severe
NN	WARWICK BLVD	23RD ST	39TH ST	0.75	4,431	2003	5,000	8,000	3	3	3	3	B	B	B	B	Low to Moderate
NN	WARWICK BLVD	39TH ST	HUNTINGTON AVE	1.75	16,461	2003	17,000	16,000	3	3	3	3	B	C	B	C	Low to Moderate
NN	YORKTOWN RD	WARWICK BLVD	I-64	0.98	6,298	2003	9,000	17,000	2	2	2	2	C	C	C	C	Severe
NN	YORKTOWN RD	I-64	JEFFERSON AVE	0.15	6,298	2003	9,000	16,000	2	2	2	2	C	D	D	D	Low to Moderate
NN	YORKTOWN RD	JEFFERSON AVE	CRAFFORD RD	0.61	11,860	2003	16,000	23,000	2	2	2	2	D	D	E	E	Severe
NN	YORKTOWN RD	CRAFFORD RD	YORK CO LINE	0.44	9,957	2003	14,000	19,000	2	2	2	2	C	C	D	D	Severe
NOR	21ST ST	HAMPTON BLVD	COLLEY AVE	0.35	8,467	2003	11,000	5,000	2	2	2	2	D	D	D	E	Low to Moderate
NOR	21ST ST	COLLEY AVE	LLEWELLYN ST	0.45	14,686	2003	15,000	17,000	2	2	2	2	D	E	D	E	Severe
NOR	21ST ST	LLEWELLYN ST	MONTICELLO AVE	0.27	10,202	2003	11,000	13,000	2	2	2	2	E	E	E	E	Severe
NOR	26TH ST	HAMPTON BLVD	COLLEY AVE	0.39	3,617	2003	7,000	10,000	3	3	3	3	B	B	B	B	Low to Moderate
NOR	26TH ST	COLLEY AVE	LLEWELLYN AVE	0.77	8,756	2003	9,000	8,000	3	3	3	3	B	C	B	C	Low to Moderate
NOR	26TH ST	LLEWELLYN AVE	MONTICELLO AVE	0.27	9,440	2003	10,000	10,000	3	3	3	3	C	D	C	D	Moderate
NOR	26TH ST	MONTICELLO AVE	CHURCH ST	0.15	9,799	2003	10,000	10,000	3	3	3	3	C	D	C	D	Moderate
NOR	26TH ST	CHURCH ST	27TH ST	0.26	9,481	2003	10,000	10,000	3	3	3	3	C	D	C	D	Moderate
NOR	27TH ST	HAMPTON BLVD	COLLEY AVE	0.39	8,340	2003	9,000	8,000	3	3	3	3	C	C	C	C	Low to Moderate
NOR	27TH ST	COLLEY AVE	LLEWELLYN AVE	0.47	8,340	2003	9,000	9,000	3	3	3	3	C	C	C	C	Low to Moderate
NOR	27TH ST	LLEWELLYN AVE	MONTICELLO AVE	0.26	10,640	2003	11,000	14,000	3	3	3	3	D	D	D	D	Moderate
NOR	27TH ST	MONTICELLO AVE	CHURCH ST	0.10	10,640	2003	11,000	18,000	3	3	3	3	D	D	D	D	Moderate
NOR	27TH ST	CHURCH ST	26TH ST	0.25	10,640	2003	11,000	14,000	3	3	3	3	D	D	D	D	Moderate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
NOR	38TH ST	HAMPTON BLVD	COLLEY AVE	0.40	6,023	2003	7,000	6,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	38TH ST	COLLEY AVE	LLEWELLYN AVE	0.54	8,149	2003	9,000	12,000	2	2	2	2	C	C	C	D	Moderate
NOR	38TH ST	LLEWELLYN AVE	GRANBY ST	0.16	4,569	2003	5,000	5,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	4TH VIEW ST	I-64	OCEAN VIEW AVE	0.24	13,806	2003	15,000	24,000	4	4	4	4	D	D	E	D	Severe
NOR	ADMIRAL TAUSSIG BLVD	HAMPTON BLVD	I-564	0.74	33,595	2003	35,000	24,000	4	4	4	4	F	F	F	F	Low to Moderate
NOR	AZALEA GARDEN RD	VA BEACH BLVD	PRINCESS ANNE RD	0.79	11,624	2003	12,000	12,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	AZALEA GARDEN RD	PRINCESS ANNE RD	SEWELLS POINT RD	0.31	16,705	2003	17,000	19,000	4	4	4	4	B	B	B	C	Low to Moderate
NOR	AZALEA GARDEN RD	SEWELLS POINT RD	ROBIN HOOD RD	0.64	10,329	2003	11,000	11,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	AZALEA GARDEN RD	ROBIN HOOD RD	I-64	0.43	10,713	2003	12,000	13,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	AZALEA GARDEN RD	I-64	MILITARY HWY	0.40	10,012	2003	11,000	11,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	AZALEA GARDEN RD	MILITARY HWY	NORVIEW AVE	0.60	14,536	2003	15,000	26,000	4	4	4	4	B	B	B	B	Moderate
NOR	AZALEA GARDEN RD	NORVIEW AVE	LITTLE CREEK RD	1.42	14,536	2003	15,000	21,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	BAINBRIDGE BLVD	SCL NORFOLK	S MAIN ST	0.50	1,551	2003	2,000	2,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	BALLENTINE BLVD	I-264	VA BEACH BLVD	0.70	27,525	2003	28,000	31,000	4	4	4	4	D	D	D	D	Moderate
NOR	BALLENTINE BLVD	VA BEACH BLVD	PRINCESS ANNE RD	0.50	14,383	2003	15,000	15,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	BALLENTINE BLVD	PRINCESS ANNE RD	CHESAPEAKE BLVD	0.95	11,969	2003	13,000	11,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	BAY AVE	FIRST VIEW ST	I-64 RAMP	0.27	17,199	2003	18,000	13,000	4	4	4	4	D	D	D	E	Low to Moderate
NOR	BAY AVE/OCEAN AVE	I-64	GRANBY ST	0.38	2,476	2000	3,000	6,000	2	2	2	2	D	D	D	D	Moderate
NOR	BAY VIEW BLVD	GRANBY ST	TIDEWATER DR	0.61	9,146	2003	10,000	9,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	BAY VIEW BLVD	TIDEWATER DR	CHESAPEAKE BLVD	0.51	12,939	2003	13,000	10,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	BAY VIEW BLVD	CHESAPEAKE BLVD	CAPE VIEW AVE	1.11	6,722	2003	7,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	BERKLEY AVE	I-464	STATE ST	0.10	14,543	2003	16,000	18,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	BERKLEY AVE	STATE ST	MAIN ST	0.10	13,263	2003	14,000	17,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	BERKLEY AVE	MAIN ST	BERKLEY AVE EXT	0.20	12,967	2003	14,000	13,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	BERKLEY AVE	BERKLEY AVE EXT	INDIAN RIVER RD	0.54	12,000	2003	13,000	10,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	BERKLEY AVE EXT	BERKLEY AVE/FAUQUIER ST	WILSON RD	0.77	3,274	2003	4,000	4,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	BERKLEY AVE EXT	WILSON RD	CAMPOSTELLA RD	0.48	3,074	2003	4,000	12,000	2	2	2	2	B	B	B	B	Moderate
NOR	BOUSH ST/WATERSIDE DR	ST PAULS BLVD	CITY HALL AVE	0.57	30,305	2001	34,000	38,000	4	4	4	4	D	D	F	F	Severe
NOR	BOUSH ST	CITY HALL AVE	BUTE STREET	0.35	30,305	2001	34,000	35,000	4	4	4	4	D	D	F	F	Severe
NOR	BOUSH ST	BUTE STREET	BRAMBLETON AVE	0.09	28,198	2000	32,000	35,000	4	4	4	4	F	F	F	F	Severe
NOR	BOUSH ST	BRAMBLETON AVE	OLNEY RD	0.14	9,516	2003	10,000	9,000	3	3	3	3	D	D	D	D	Moderate
NOR	BOUSH ST	OLNEY RD	VA BEACH BLVD	0.07	9,516	2003	10,000	9,000	3	3	3	3	D	D	D	D	Moderate
NOR	BRAMBLETON AVE	HAMPTON BLVD	COLLEY AVE	0.50	30,840	2003	35,000	46,000	6	6	6	6	C	C	C	C	Moderate
NOR	BRAMBLETON AVE	COLLEY AVE	BOUSH ST	0.85	46,797	2001	50,000	54,000	6	6	6	6	C	D	C	D	Severe
NOR	BRAMBLETON AVE	BOUSH ST	MONTICELLO AVE	0.18	36,426	2003	38,000	39,000	6	6	6	6	E	F	F	F	Severe
NOR	BRAMBLETON AVE	MONTICELLO AVE	ST PAULS BLVD	0.12	36,426	2003	40,000	40,000	5	5	5	5	E	F	F	F	Severe
NOR	BRAMBLETON AVE	ST PAULS BLVD	CHURCH ST	0.30	23,913	2003	24,000	22,000	6	6	6	6	D	D	D	D	Low to Moderate
NOR	BRAMBLETON AVE	CHURCH ST	TIDEWATER DR	0.29	29,252	2003	31,000	25,000	6	6	6	6	D	D	D	D	Low to Moderate
NOR	BRAMBLETON AVE	TIDEWATER DR	PARK AVE	0.42	36,846	2003	38,000	32,000	4	4	4	4	D	F	E	F	Moderate
NOR	BRAMBLETON AVE	PARK AVE	I-264	0.20	47,524	2003	40,000	38,000	6	6	6	6	D	E	D	D	Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
NOR	CAMPOSTELLA RD	SCL NORFOLK/CASCADE BLVD	INDIAN RIVER RD	0.55	24,571	2003	26,000	18,000	6	6	6	6	C	C	C	C	Low to Moderate
NOR	CAMPOSTELLA RD	INDIAN RIVER RD	WILSON RD	0.23	30,755	2003	31,000	27,000	6	6	6	6	C	C	C	C	Low to Moderate
NOR	CAMPOSTELLA RD	WILSON RD	SE CAMPOSTELLA BR	0.33	43,395	2003	44,000	42,000	6	6	6	6	D	F	D	F	Severe
NOR	CAMPOSTELLA RD	SE CAMPOSTELLA BR	KIMBALL TERR	0.44	43,395	2003	44,000	42,000	6	6	6	6	D	F	D	F	Severe
NOR	CAMPOSTELLA RD	KIMBALL TERR	I-264	0.10	43,395	2003	44,000	41,000	6	6	6	6	D	F	D	F	Severe
NOR	CHESAPEAKE BLVD	LAFAYETTE BLVD	CROMWELL DR	0.13	22,116	2003	23,000	34,000	4	4	4	4	C	D	D	D	Severe
NOR	CHESAPEAKE BLVD	CROMWELL DR	ROBIN HOOD RD	0.21	22,116	2003	23,000	38,000	4	4	4	4	C	D	D	D	Severe
NOR	CHESAPEAKE BLVD	ROBIN HOOD RD	HYDE CIR	0.89	22,116	2003	23,000	28,000	4	4	4	4	C	D	C	D	Moderate
NOR	CHESAPEAKE BLVD	HYDE CIR	NORVIEW AVE	0.13	22,116	2003	23,000	24,000	6	6	6	6	B	B	B	B	Low to Moderate
NOR	CHESAPEAKE BLVD	NORVIEW AVE	I-64	0.94	20,125	2003	21,000	21,000	6	6	6	6	B	B	B	B	Low to Moderate
NOR	CHESAPEAKE BLVD	I-64	JOHNSTONS RD	0.31	26,467	2003	27,000	29,000	6	6	6	6	B	B	B	B	Low to Moderate
NOR	CHESAPEAKE BLVD	JOHNSTONS RD	LITTLE CREEK RD	0.49	26,467	2003	27,000	29,000	6	6	6	6	B	B	B	B	Low to Moderate
NOR	CHESAPEAKE BLVD	LITTLE CREEK RD	SHEPPARD AVE	0.63	25,276	2003	26,000	24,000	4	4	4	4	D	D	D	D	Moderate
NOR	CHESAPEAKE BLVD	SHEPPARD AVE	BAY VIEW BLVD	0.41	25,276	2003	26,000	24,000	4	4	4	4	D	D	D	D	Moderate
NOR	CHESAPEAKE BLVD	BAY VIEW BLVD	CHESAPEAKE ST	0.61	14,622	2003	15,000	10,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	CHESAPEAKE BLVD	CHESAPEAKE ST	OCEAN VIEW AVE	0.47	6,864	2003	7,000	6,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	CHURCH ST	BRAMBLETON AVE	VA BEACH BLVD	0.22	15,852	2003	17,000	15,000	4	4	4	4	D	D	D	D	Moderate
NOR	CHURCH ST	VA BEACH BLVD	PRINCESS ANNE RD	0.12	17,176	2003	18,000	14,000	4	4	4	4	D	D	D	D	Low to Moderate
NOR	CHURCH ST	PRINCESS ANNE RD	26TH ST	0.83	19,936	2003	21,000	25,000	2	4	4	4	C	C	C	C	Moderate
NOR	CHURCH ST	26TH ST	27TH ST	0.06	14,160	2003	14,000	20,000	2	4	4	4	D	D	D	D	Moderate
NOR	CHURCH ST	27TH ST	MONTICELLO AVE	0.21	11,673	2003	11,000	14,000	2	4	4	4	C	D	C	D	Moderate
NOR	CHURCH ST	MONTICELLO AVE	GRANBY ST	0.13	29,000	2003	29,000	24,000	4	4	4	4	D	D	D	D	Low to Moderate
NOR	CITY HALL AVE	BOUSH ST	GRANBY ST	0.08	8,000	2003	8,000	9,000	2	2	2	2	D	D	D	D	Moderate
NOR	CITY HALL AVE	GRANBY ST	MONTICELLO AVE	0.06	8,000	2003	8,000	12,000	2	2	2	2	D	D	D	D	Moderate
NOR	CITY HALL AVE	MONTICELLO AVE	ST PAULS BLVD	0.29	8,000	2003	8,000	17,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	COLLEY AVE	BRAMBLETON AVE	OLNEY RD	0.21	18,211	2003	20,000	27,000	4	4	4	4	E	E	E	E	Severe
NOR	COLLEY AVE	OLNEY RD	PRINCESS ANNE RD	0.39	14,704	2003	15,000	16,000	4	4	4	4	D	E	D	E	Severe
NOR	COLLEY AVE	PRINCESS ANNE RD	21ST ST	0.40	16,524	2003	17,000	20,000	2	2	2	2	D	E	D	E	Severe
NOR	COLLEY AVE	21ST ST	26TH ST	0.24	15,483	2003	16,000	19,000	4	4	4	4	E	E	E	E	Severe
NOR	COLLEY AVE	26TH ST	27TH ST	0.05	15,483	2003	16,000	20,000	4	4	4	4	E	E	E	E	Severe
NOR	COLLEY AVE	27TH ST	38TH ST	0.34	14,476	2003	15,000	18,000	2	2	2	2	E	E	E	E	Severe
NOR	COLLEY AVE	38TH ST	53RD ST	0.74	14,476	2003	15,000	17,000	2	2	2	2	D	D	D	D	Severe
NOR	CROMWELL DR	TAIT TERRACE DR	CHESAPEAKE BLVD	0.59	15,980	2003	16,000	16,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	CROMWELL DR	CHESAPEAKE BLVD	TIDEWATER DR	0.82	13,457	2003	14,000	13,000	2	2	2	2	B	C	B	C	Low to Moderate
NOR	DUKE ST/YORK ST	BOUSH ST	BUTE ST	0.21	OUT				2	0	0	0	-	-	-	-	NA
NOR	DUKE ST	BUTE ST	BRAMBLETON AVE	0.21	OUT				2	0	0	0	-	-	-	-	NA
NOR	DUKE ST	OLNEY RD	BRAMBLETON AVE	0.19	9,500	2003	10,000	10,000	2	2	2	2	D	E	E	F	Severe
NOR	GRANBY ST	CHURCH ST	38TH ST	0.36	24,293	2003	25,000	24,000	4	4	4	4	E	F	E	F	Severe
NOR	GRANBY ST	38TH ST	LLEWELLYN AVE	0.42	24,293	2003	25,000	26,000	4	4	4	4	D	D	D	D	Moderate
NOR	GRANBY ST	LLEWELLYN AVE	WILLOW WOOD DRIVE	0.28	40,039	2003	41,000	37,000	6	6	6	6	C	C	C	C	Low to Moderate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
NOR	GRANBY ST	WILLOW WOOD DRIVE	THOLE ST	1.15	39,655	2003	40,000	39,000	6	6	6	6	C	C	C	C	Low to Moderate
NOR	GRANBY ST	THOLE ST	LITTLE CREEK RD	0.60	32,156	2003	33,000	34,000	6	6	6	6	C	C	C	C	Low to Moderate
NOR	GRANBY ST	LITTLE CREEK RD	I-564	0.26	27,824	2003	28,000	28,000	6	6	6	6	C	C	C	C	Low to Moderate
NOR	GRANBY ST	I-564	I-64	0.18	20,998	2003	22,000	28,000	4	4	4	4	B	B	B	B	Moderate
NOR	GRANBY ST	I-64	BAY VIEW BLVD	0.99	20,998	2003	22,000	23,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	GRANBY ST	BAY VIEW BLVD	BAY AVE	0.56	15,767	2003	17,000	15,000	4	4	4	4	B	C	B	C	Low to Moderate
NOR	GRANBY ST	BAY AVE	TIDEWATER DR	0.38	15,767	2003	17,000	18,000	4	4	4	4	B	C	B	C	Low to Moderate
NOR	GRANBY ST	TIDEWATER DR	OCEAN VIEW AVE	0.71	9,359	2003	11,000	9,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	HAMPTON BLVD	BRAMBLETON AVE	PRINCESS ANNE RD	0.40	38,698	2003	40,000	47,000	4	4	4	4	F	F	F	F	Severe
NOR	HAMPTON BLVD	PRINCESS ANNE RD	21ST ST	0.48	38,698	2003	40,000	43,000	4	4	4	4	F	F	F	F	Severe
NOR	HAMPTON BLVD	21ST ST	26TH ST	0.21	41,819	2003	43,000	45,000	4	4	4	4	F	F	F	F	Severe
NOR	HAMPTON BLVD	26TH ST	27TH ST	0.05	41,048	2003	43,000	39,000	4	4	4	4	F	F	F	F	Severe
NOR	HAMPTON BLVD	27TH ST	38TH ST	0.18	41,048	2003	43,000	47,000	4	4	4	4	F	F	F	F	Severe
NOR	HAMPTON BLVD	38TH ST	JAMESTOWN CRESCENT	1.32	40,780	2003	42,000	42,000	6	6	6	6	E	E	E	E	Severe
NOR	HAMPTON BLVD	JAMESTOWN CRESCENT	LITTLE CREEK RD	1.28	40,780	2003	42,000	42,000	6	6	6	6	C	C	C	C	Low to Moderate
NOR	HAMPTON BLVD	LITTLE CREEK RD	INT TERM BLVD	0.18	37,387	2003	39,000	44,000	6	6	6	6	E	E	E	E	Severe
NOR	HAMPTON BLVD	INT TERM BLVD	INTERMODAL CONNECTOR	1.00	25,809	2003	36,000	38,000	6	6	6	6	D	D	D	D	Moderate
NOR	HAMPTON BLVD	INTERMODAL CONNECTOR	ADM TAUSSIG BLVD	0.92	25,809	2003	36,000	44,000	6	6	6	6	D	D	D	D	Moderate
NOR	INDIAN RIVER RD	MARSH ST	WILSON RD	0.36	13,895	2003	14,000	13,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	INDIAN RIVER RD	WILSON RD	CAMPOSTELLA RD	0.16	13,895	2003	14,000	16,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	INDIAN RIVER RD	CAMPOSTELLA RD	CHESAPEAKE CL	0.71	24,852	2003	26,000	25,000	6	6	6	6	C	C	C	C	Low to Moderate
NOR	INGLESIDE RD	VA BEACH BLVD	PRINCESS ANNE RD	0.66	15,623	2003	16,000	18,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	INGLESIDE RD	PRINCESS ANNE RD	TAIT TERRACE DR	0.46	16,219	2003	17,000	17,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	INTERNATIONAL TERMINAL BLVD	HAMPTON BLVD	I-564	1.74	29,711	2003	31,000	25,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	JAMESTOWN CRESCENT	53RD ST	HAMPTON BLVD	0.73	6,834	2003	8,000	13,000	2	2	2	2	B	C	C	C	Moderate
NOR	JOHNSTONS RD	SEWELLS POINT RD	CHESAPEAKE BLVD	0.21	9,000	2003	11,000	14,000	2	2	2	2	C	D	C	D	Moderate
NOR	JOHNSTONS RD	CHESAPEAKE BLVD	MILITARY HWY	0.36	13,730	2003	14,000	12,000	2	2	2	2	D	E	D	E	Severe
NOR	JOHNSTONS RD/HALPRIN LN	MILITARY HWY	LITTLE CREEK RD	0.94	8,155	2003	9,000	9,000	2	2	2	2	B	B	B	C	Low to Moderate
NOR	KEMPSVILLE RD	NEWTOWN RD	VA BEACH BLVD	1.00	23,257	2003	24,000	30,000	4	4	4	4	F	F	F	F	Severe
NOR	KEMPSVILLE RD	VA BEACH BLVD	NORTHAMPTON BLVD	1.58	12,559	2003	14,000	16,000	2	2	2	2	C	C	C	C	Moderate
NOR	LAFAYETTE BLVD	27TH ST	TIDEWATER DR	0.89	16,237	2003	17,000	19,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	LAFAYETTE BLVD	TIDEWATER DR	CHESAPEAKE BLVD	0.56	22,169	2003	23,000	23,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	LIBERTY ST	STATE ST	SOUTH MAIN ST	0.11	3,704	2003	4,000	7,000	2	2	2	2	C	B	C	B	Low to Moderate
NOR	LIBERTY ST	SOUTH MAIN ST	NCL CHESAPEAKE	0.63	4,978	2003	5,000	5,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	LITTLE CREEK RD	HAMPTON BLVD	GRANBY ST	1.98	23,930	2003	25,000	25,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	LITTLE CREEK RD	GRANBY ST	I-64	0.35	38,860	2003	39,000	37,000	4	4	4	4	E	E	E	E	Severe
NOR	LITTLE CREEK RD	I-64	TIDEWATER DR	0.77	29,948	2000	30,000	31,000	6	6	6	6	D	D	D	D	Moderate
NOR	LITTLE CREEK RD	TIDEWATER DR	SEWELLS POINT RD	0.18	29,324	2003	31,000	37,000	4	4	4	**6**	D	D	D	D	Low to Moderate
NOR	LITTLE CREEK RD	SEWELLS POINT RD	CHESAPEAKE BLVD	0.53	29,324	2003	31,000	34,000	4	4	4	**6**	D	D	D	D	Low to Moderate
NOR	LITTLE CREEK RD	CHESAPEAKE BLVD	MILITARY HWY	0.15	46,106	2003	47,000	39,000	4	4	4	**6**	F	F	F	F	Moderate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
NOR	LITTLE CREEK RD	MILITARY HWY	AZALEA GARDEN RD	1.54	31,264	2003	32,000	34,000	4	4	4	**6**	C	D	C	D	Moderate
NOR	LITTLE CREEK RD	AZALEA GARDEN RD	SHORE DR	1.10	25,524	2003	26,000	33,000	4	4	4	4	C	D	C	D	Moderate
NOR	LLEWELLYN AVE	VA BEACH BLVD	PRINCESS ANNE RD	0.30	10,637	2003	11,000	14,000	4	4	4	4	B	C	B	C	Low to Moderate
NOR	LLEWELLYN AVE	PRINCESS ANNE RD	21ST ST	0.50	10,763	2003	11,000	15,000	4	4	4	4	B	C	B	C	Low to Moderate
NOR	LLEWELLYN AVE	21ST ST	26TH ST	0.26	9,198	2003	9,000	10,000	4	4	4	4	D	D	D	D	Moderate
NOR	LLEWELLYN AVE	26TH ST	27TH ST	0.05	9,198	2003	9,000	11,000	4	4	4	4	D	D	D	D	Moderate
NOR	LLEWELLYN AVE	27TH ST	35TH ST	0.41	8,203	2003	9,000	12,000	3	3	3	3	C	C	C	C	Low to Moderate
NOR	LLEWELLYN AVE	35TH ST	38TH ST	0.15	8,203	2003	9,000	12,000	3	3	3	3	C	C	C	C	Low to Moderate
NOR	LLEWELLYN AVE	38TH ST	DELAWARE AVE	0.20	13,292	2003	14,000	16,000	3	3	3	3	D	D	D	D	Moderate
NOR	LLEWELLYN AVE	DELAWARE AVE	GRANBY ST	0.27	7,454	2003	8,000	8,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	MIDTOWN TUNNEL	PORTSMOUTH CL	BRAMBLETON AVE	0.59	35,309	2003	38,000	64,000	2	2	2	2	F	F	F	F	Severe
NOR	MILITARY HWY	VA BEACH CL	I-264	0.75	51,558	2003	54,000	62,000	8	8	8	8	B	B	B	C	Moderate
NOR	MILITARY HWY	I-264	VA BEACH BLVD	0.83	52,785	2003	55,000	53,000	8	8	8	8	C	D	C	D	Moderate
NOR	MILITARY HWY	VA BEACH BLVD	LOWERY RD	0.54	54,028	2003	58,000	80,000	8	8	8	8	C	C	C	D	Severe
NOR	MILITARY HWY	LOWERY RD	PRIN ANNE RD/NORTHAMPTON BLVD	0.81	54,028	2003	58,000	86,000	4	4	4	**8**	E	F	F	F	Severe
NOR	MILITARY HWY	PRIN ANNE RD/NORTHAMPTON BLVD	I-64	0.52	51,231	2003	55,000	88,000	4	4	4	**6**	C	F	C	F	Severe
NOR	MILITARY HWY	I-64	AZALEA GARDEN RD	0.65	31,651	2003	33,000	37,000	4	4	4	4	D	E	D	E	Severe
NOR	MILITARY HWY	AZALEA GARDEN RD	NORVIEW AVE	0.39	30,362	2003	31,000	29,000	4	4	4	4	D	D	D	E	Moderate
NOR	MILITARY HWY	NORVIEW AVE	JOHNSTONS RD	1.16	31,077	2003	33,000	27,000	4	4	4	4	D	D	D	D	Low to Moderate
NOR	MILITARY HWY	JOHNSTONS RD	LITTLE CREEK RD	0.48	31,077	2003	33,000	16,000	4	4	4	4	D	D	D	D	Low to Moderate
NOR	MONTICELLO AVE	CITY HALL AVE	BRAMBLETON AVE	0.47	6,592	2003	7,000	8,000	4	4	4	4	D	D	D	D	Moderate
NOR	MONTICELLO AVE	BRAMBLETON AVE	ST PAULS BLVD	0.19	6,523	2003	7,000	9,000	4	4	4	4	D	D	D	D	Moderate
NOR	MONTICELLO AVE	ST PAULS BLVD	VA BEACH BLVD	0.10	28,887	2003	29,000	34,000	4	4	4	4	D	D	D	D	Moderate
NOR	MONTICELLO AVE	VA BEACH BLVD	PRINCESS ANNE RD	0.18	24,948	2003	26,000	30,000	4	4	4	4	D	D	D	D	Moderate
NOR	MONTICELLO AVE	PRINCESS ANNE RD	21ST ST	0.48	24,948	2003	26,000	27,000	4	4	4	4	D	D	D	D	Moderate
NOR	MONTICELLO AVE	21ST ST	26TH ST	0.27	18,048	2003	19,000	24,000	4	4	4	4	D	D	D	D	Moderate
NOR	MONTICELLO AVE	26TH ST	27TH ST	0.05	18,048	2003	19,000	22,000	4	4	4	4	D	D	D	D	Moderate
NOR	MONTICELLO AVE	27TH ST	CHURCH ST	0.18	18,048	2003	19,000	11,000	4	4	4	4	D	D	D	D	Low to Moderate
NOR	NEWTOWN RD	KEMPSVILLE RD	I-264	0.38	32,264	2003	34,000	35,000	4	4	4	4	E	E	E	E	Severe
NOR	NEWTOWN RD	I-264	VA BEACH BLVD	0.66	40,196	2003	42,000	47,000	4	4	4	4	E	F	E	F	Severe
NOR	NEWTOWN RD	VA BEACH BLVD	VA BEACH CL	0.15	38,699	2003	40,000	44,000	4	4	4	4	D	D	D	D	Severe
NOR	NORTHAMPTON BLVD	MILITARY HWY	KEMPSVILLE RD	0.24	39,750	2003	43,000	44,000	6	6	6	6	D	D	D	D	Moderate
NOR	NORTHAMPTON BLVD	KEMPSVILLE RD	I-64	0.49	39,750	2003	43,000	46,000	6	6	6	6	D	D	D	D	Moderate
NOR	NORTHAMPTON BLVD	I-64	WESLEYAN DR/VA BEACH CL	0.34	92,726	2003	100,000	112,000	8	8	8	8	F	F	F	F	Severe
NOR	NORVIEW AVE	TIDEWATER DR	CHESAPEAKE BLVD	1.14	5,793	2003	7,000	8,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	NORVIEW AVE	CHESAPEAKE BLVD	I-64	0.41	23,289	2003	24,000	25,000	4	4	4	4	A	B	A	B	Low to Moderate
NOR	NORVIEW AVE	I-64	MILITARY HWY	0.47	30,018	2003	32,000	29,000	4	4	4	4	D	E	E	E	Severe
NOR	NORVIEW AVE	MILITARY HWY	AZALEA GARDEN RD	0.50	16,551	2003	17,000	16,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	NORVIEW AVE	AZALEA GARDEN RD	NORFOLK INT AIRPORT	0.20	12,667	2003	15,000	14,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	OCEAN VIEW AVE	4TH VIEW ST	TIDEWATER DR	0.09	15,964	2003	17,000	30,000	4	4	4	4	C	C	C	C	Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
NOR	OCEAN VIEW AVE	TIDEWATER DR	GRANBY ST	0.75	15,964	2003	17,000	14,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	OCEAN VIEW AVE	GRANBY ST	CHESAPEAKE BLVD	0.44	15,964	2003	17,000	28,000	4	4	4	4	D	D	D	D	Moderate
NOR	OCEAN VIEW AVE	CHESAPEAKE BLVD	21ST BAY ST	3.15	18,765	2003	20,000	19,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	OLNEY RD	COLLEY AVE	DUKE ST/VA BEACH BLVD	0.56	10,851	2003	12,000	12,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	PARK AVE	BRAMBLETON AVE	VA BEACH BLVD	0.45	17,343	2003	19,000	18,000	4	4	4	4	D	D	D	D	Moderate
NOR	PARK AVE	VA BEACH BLVD	PRINCESS ANNE RD	0.14	14,120	2003	17,000	19,000	4	4	4	4	D	D	D	D	Moderate
NOR	PRINCESS ANNE RD	HAMPTON BLVD	COLLEY AVE	0.08	5,582	2003	6,000	5,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	PRINCESS ANNE RD	COLLEY AVE	LLEWELLYN AVE	0.57	8,129	2003	9,000	10,000	2	2	2	2	C	D	D	D	Moderate
NOR	PRINCESS ANNE RD	LLEWELLYN AVE	MONTICELLO AVE	0.18	9,109	2003	10,000	10,000	2	2	2	2	D	D	D	D	Moderate
NOR	PRINCESS ANNE RD	MONTICELLO AVE	CHURCH ST	0.51	9,292	2003	10,000	8,000	2	2	2	2	D	D	D	D	Moderate
NOR	PRINCESS ANNE RD	CHURCH ST	TIDEWATER DR	0.28	14,066	2003	16,000	15,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	PRINCESS ANNE RD	TIDEWATER DR	MAY AVE	0.14	23,000	2003	24,000	26,000	4	4	4	4	B	C	B	C	Moderate
NOR	PRINCESS ANNE RD	MAY AVE	PARK AVE	0.36	23,000	2003	24,000	26,000	4	4	4	4	B	C	B	C	Moderate
NOR	PRINCESS ANNE RD	PARK AVE	BALLENTINE BLVD	0.97	21,485	2003	22,000	24,000	4	4	4	4	B	B	B	C	Low to Moderate
NOR	PRINCESS ANNE RD	BALLENTINE BLVD	INGLESIDE RD	0.37	23,075	2003	25,000	30,000	4	4	4	4	B	B	C	C	Moderate
NOR	PRINCESS ANNE RD	INGLESIDE RD	AZALEA GARDEN RD	0.59	23,075	2003	25,000	31,000	4	4	4	4	B	B	B	C	Moderate
NOR	PRINCESS ANNE RD	AZALEA GARDEN RD	SEWELLS POINT RD	0.32	25,125	2003	26,000	26,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	PRINCESS ANNE RD	SEWELLS POINT RD	MILITARY HWY	1.18	25,125	2003	26,000	31,000	4	4	4	4	C	C	C	C	Moderate
NOR	ROBIN HOOD RD	CHESAPEAKE BLVD	SEWELLS POINT RD	0.98	7,344	2003	8,000	9,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	ROBIN HOOD RD	SEWELLS POINT RD	AZALEA GARDEN RD	0.36	6,013	2003	7,000	10,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	ROBIN HOOD RD	AZALEA GARDEN RD	ELLSMERE AVE	0.41	9,911	2003	11,000	16,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	ROBIN HOOD RD	ELLSMERE AVE	MILITARY HWY	0.33	14,020	2003	15,000	16,000	2	2	2	2	F	E	F	F	Severe
NOR	SEWELLS POINT RD	PRINCESS ANNE RD	AZALEA GARDEN RD	0.26	13,773	2003	14,000	5,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	SEWELLS POINT RD	AZALEA GARDEN RD	ROBIN HOOD RD	0.50	13,773	2003	14,000	22,000	4	4	4	4	B	C	B	C	Low to Moderate
NOR	SEWELLS POINT RD	ROBIN HOOD RD	CHESAPEAKE BLVD	0.86	13,773	2003	14,000	15,000	4	4	4	4	B	C	B	C	Low to Moderate
NOR	SEWELLS POINT RD	CHESAPEAKE BLVD	PARTRIDGE ST	0.12	9,978	2003	11,000	13,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	SEWELLS POINT RD	PARTRIDGE ST	PHILPOTTS RD	0.28	9,978	2003	11,000	13,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	SEWELLS POINT RD	PHILPOTTS RD	I-64	0.31	9,978	2003	11,000	23,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	SEWELLS POINT RD	I-64	LITTLE CREEK RD	1.02	9,978	2003	11,000	20,000	4	4	4	4	B	B	B	B	Low to Moderate
NOR	SHORE DRIVE	21ST BAY ST	LITTLE CREEK RD	0.88	24,064	2003	26,000	29,000	4	4	4	4	D	D	D	D	Moderate
NOR	SHORE DRIVE	LITTLE CREEK RD	VA BEACH CL	0.98	34,891	2003	37,000	35,000	4	4	4	4	B	C	B	C	Low to Moderate
NOR	SOUTH MAIN ST	I-464	BAINBRIDGE BLVD	0.07	1,300	2002	2,000	5,000	2	2	2	2	E	E	E	E	Severe
NOR	SOUTH MAIN ST	BAINBRIDGE BLVD	LIBERTY ST	0.21	1,300	2002	2,000	5,000	2	2	2	2	E	E	E	E	Severe
NOR	SOUTH MAIN ST	LIBERTY ST	BERKLEY AVE	0.06	2,300	2002	3,000	9,000	2	2	2	2	E	E	E	E	Severe
NOR	ST PAULS BLVD	WATERSIDE DR	CITY HALL AVE	0.23	20,820	2003	22,000	20,000	6	6	6	6	C	D	C	D	Moderate
NOR	ST PAULS BLVD	CITY HALL AVE	I-264 RAMP/MACARTHUR MALL	0.11	41,857	2003	44,000	14,000	6	6	6	6	D	D	D	D	Low to Moderate
NOR	ST PAULS BLVD	I-264 RAMP/MACARTHUR MALL	BRAMBLETON AVE	0.39	41,857	2003	44,000	50,000	6	6	6	6	D	D	D	D	Moderate
NOR	ST PAULS BLVD	BRAMBLETON AVE	MONTICELLO AVE	0.25	23,000	2003	25,000	26,000	6	6	6	6	C	C	C	C	Low to Moderate
NOR	STATE ST	LIBERTY ST	BERKLEY AVE	0.07	3,704	2003	4,000	7,000	2	2	2	2	E	E	E	E	Severe
NOR	THOLE ST	GRANBY ST	TIDEWATER DR	1.10	11,824	2003	12,000	11,000	2	2	2	2	C	C	C	C	Low to Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
NOR	TIDEWATER DR	CITY HALL AVE	BRAMBLETON AVE	0.35	26,840	2003	28,000	27,000	6	6	6	6	C	C	C	C	Low to Moderate
NOR	TIDEWATER DR	BRAMBLETON AVE	VA BEACH BLVD	0.29	33,916	2003	35,000	37,000	6	6	6	6	D	D	D	D	Moderate
NOR	TIDEWATER DR	VA BEACH BLVD	PRINCESS ANNE RD	0.14	32,714	2003	34,000	36,000	6	6	6	6	D	D	D	D	Moderate
NOR	TIDEWATER DR	PRINCESS ANNE RD	LAFAYETTE BLVD	1.59	32,714	2003	34,000	32,000	4	4	4	4	D	D	D	D	Moderate
NOR	TIDEWATER DR	LAFAYETTE BLVD	CROMWELL DR	0.62	26,724	2003	29,000	34,000	4	4	4	4	D	D	E	E	Severe
NOR	TIDEWATER DR	CROMWELL DR	NORVIEW AVE	0.43	35,639	2003	38,000	45,000	4	4	4	4	D	D	D	E	Severe
NOR	TIDEWATER DR	NORVIEW AVE	THOLE ST	0.91	34,507	2003	36,000	35,000	4	4	4	4	D	D	D	D	Moderate
NOR	TIDEWATER DR	THOLE ST	I-64	0.15	34,507	2003	36,000	36,000	4	4	4	4	D	D	D	D	Severe
NOR	TIDEWATER DR	I-64	LITTLE CREEK RD	0.68	24,746	2003	25,000	26,000	4	4	4	4	D	D	D	D	Moderate
NOR	TIDEWATER DR	LITTLE CREEK RD	BAY VIEW BLVD	1.18	15,461	2003	16,000	19,000	4	4	4	4	A	A	A	A	Low to Moderate
NOR	TIDEWATER DR	BAY VIEW BLVD	GRANBY ST	1.01	11,404	2003	13,000	15,000	4	4	4	4	A	A	A	A	Low to Moderate
NOR	TIDEWATER DR	GRANBY ST	OCEAN VIEW AVE	0.89	6,723	2003	7,000	10,000	4	4	4	4	A	A	A	A	Low to Moderate
NOR	VA BEACH BLVD	OLNEY RD	GRANBY ST	0.23	5,285	2003	6,000	11,000	4	4	4	4	D	D	D	D	Severe
NOR	VA BEACH BLVD	GRANBY ST	MONTICELLO AVE	0.07	5,795	2003	6,000	21,000	4	4	4	4	D	D	D	D	Severe
NOR	VA BEACH BLVD	MONTICELLO AVE	CHURCH ST	0.45	14,724	2003	16,000	16,000	4	4	4	4	B	C	C	C	Low to Moderate
NOR	VA BEACH BLVD	CHURCH ST	TIDEWATER DR	0.30	14,724	2003	16,000	23,000	4	4	4	4	B	C	C	C	Low to Moderate
NOR	VA BEACH BLVD	TIDEWATER DR	PARK AVE	0.53	15,621	2003	19,000	22,000	4	4	4	4	B	C	C	C	Low to Moderate
NOR	VA BEACH BLVD	PARK AVE	BALLENTINE BLVD	0.99	16,465	2003	19,000	20,000	4	4	4	4	C	C	C	C	Low to Moderate
NOR	VA BEACH BLVD	BALLENTINE BLVD	INGLESIDE RD	0.48	30,684	2003	33,000	37,000	6	6	6	6	C	C	C	C	Low to Moderate
NOR	VA BEACH BLVD	INGLESIDE RD	AZALEA GARDEN RD	0.43	30,684	2003	33,000	38,000	6	6	6	6	B	B	B	C	Low to Moderate
NOR	VA BEACH BLVD	AZALEA GARDEN RD	JETT ST	0.38	30,894	2003	34,000	42,000	6	6	6	6	B	C	C	C	Moderate
NOR	VA BEACH BLVD	JETT ST	MILITARY HWY	0.88	30,894	2003	34,000	40,000	4	4	4	**6**	D	F	D	F	Low to Moderate
NOR	VA BEACH BLVD	MILITARY HWY	GLENROCK RD	0.36	29,904	2003	33,000	48,000	6	6	6	**8**	D	D	D	D	Moderate
NOR	VA BEACH BLVD	GLENROCK RD	KEMPSVILLE RD	0.51	29,904	2003	33,000	48,000	4	4	4	**8**	C	C	C	D	Moderate
NOR	VA BEACH BLVD	KEMPSVILLE RD	NEWTOWN RD	0.93	36,304	2003	41,000	52,000	4	4	4	**8**	C	D	D	F	Low to Moderate
NOR	WESLEYAN DR	NORTHAMPTON BLVD	NCL VA BEACH	0.38	20,419	2003	21,000	35,000	2	2	2	**4**	F	F	F	F	Severe
NOR	WILLOW WOOD DR	GRANBY ST	TIDEWATER DR	1.10	12,077	2003	12,000	12,000	2	2	2	2	B	B	B	B	Low to Moderate
NOR	WILSON RD	BERKLEY AVE/CHESAPEAKE CL	INDIAN RIVER RD	0.44	9,184	2003	10,000	9,000	2	2	2	2	C	C	C	C	Low to Moderate
NOR	WILSON RD	INDIAN RIVER RD	CAMPOSTELLA RD	0.22	9,184	2003	10,000	6,000	4	4	4	4	C	C	C	C	Low to Moderate
POQ	EAST YORKTOWN RD	YORK CL	HUNT'S NECK RD	1.14	4,000	2003	5,000	12,000	2	2	2	2	C	C	C	C	Moderate
POQ	EAST YORKTOWN RD	HUNT'S NECK RD	POQUOSON AVE	0.18	7,993	2001	10,000	12,000	2	2	2	2	B	B	C	C	Moderate
POQ	LITTLE FLORIDA RD	WYTHE CREEK RD	POQUOSON AVE	1.44	12,868	2001	14,000	18,000	2	2	2	2	B	B	B	B	Severe
POQ	POQUOSON AVE	WYTHE CREEK RD	LITTLE FLORIDA RD	1.50	3,597	2001	5,000	7,000	2	2	2	2	B	B	C	C	Low to Moderate
POQ	VICTORY BLVD	YORK CO LINE	WYTHE CREEK RD	0.79	12,741	2001	14,000	18,000	2	2	2	2	B	B	B	B	Severe
POQ	WYTHE CREEK RD	HAMPTON CL	ALPHUS ST	0.96	13,991	2001	16,000	20,000	2	2	2	2	D	D	E	E	Severe
POQ	WYTHE CREEK RD	ALPHUS ST	LITTLE FLORIDA RD	0.12	15,438	2001	17,000	21,000	4	4	4	4	D	D	D	D	Moderate
POQ	WYTHE CREEK RD	LITTLE FLORIDA RD	HUDGINS RD	0.25	13,207	2001	15,000	18,000	4	4	4	4	D	D	D	D	Moderate
POQ	WYTHE CREEK RD	HUDGINS RD	POQUOSON AVE	0.61	8,491	2001	10,000	13,000	2	2	2	2	B	B	C	C	Low to Moderate
PORT	AIRLINE BLVD	CHESAPEAKE CL	GREENWOOD DR	0.30	14,462	2003	15,000	16,000	3	3	3	3	D	D	D	D	Moderate
PORT	AIRLINE BLVD	GREENWOOD DR	ELMHURST LN	0.16	15,231	2003	16,000	18,000	3	3	3	3	D	D	D	D	Moderate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
PORT	AIRLINE BLVD	ELMHURST LN	.55 MI E ELMHURST LN	0.55	11,413	2003	12,000	13,000	3	3	3	3	C	D	C	D	Moderate
PORT	AIRLINE BLVD	.55 MI E ELMHURST LN	VICTORY BLVD	0.75	11,413	2003	12,000	13,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	AIRLINE BLVD	VICTORY BLVD	PORTSMOUTH BLVD	0.29	15,800	2003	17,000	19,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	AIRLINE BLVD	PORTSMOUTH BLVD	FREDERICK BLVD	1.35	20,060	2003	21,000	17,000	4	4	4	4	C	D	C	D	Low to Moderate
PORT	AIRLINE BLVD	FREDERICK BLVD	HIGH ST	0.20	21,154	2003	22,000	19,000	4	4	4	4	C	D	C	D	Low to Moderate
PORT	BAYVIEW BLVD	MT VERNON AVE	CHAUTAUQUA AVE	0.21	15,744	2003			2	0	0	0	-	-	-	-	NA
PORT	CAVALIER BLVD	CHESAPEAKE CL	GREENWOOD DR	0.81	11,684	2003	12,000	17,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	CEDAR LN	HIGH ST	W NORFOLK RD	1.18	13,439	2003	11,000	11,000	2	2	2	2	E	C	C	C	Low to Moderate
PORT	CEDAR LN	W NORFOLK RD	WESTERN FREEWAY	0.23	15,456	2003	17,000	19,000	4	4	4	4	D	D	D	D	Moderate
PORT	CHAUTAUQUA AVE	CLEVELAND ST	DETROIT ST	0.12	14,487	2003			2	0	0	0	-	-	-	-	NA
PORT	CHAUTAUQUA AVE	DETROIT ST	WESLEY ST	0.13	15,630	2003			4	0	0	0	-	-	-	-	NA
PORT	CHAUTAUQUA AVE	WESLEY ST	BAYVIEW BLVD	0.27	13,054	2003			4	0	0	0	-	-	-	-	NA
PORT	CHURCHLAND BLVD	CHESAPEAKE CL	W NORFOLK RD	0.08	17,258	2003	16,000	15,000	4	4	4	4	D	D	D	D	Moderate
PORT	CHURCHLAND BLVD	W NORFOLK RD	TYRE NECK RD	0.12	13,202	2003	12,000	9,000	4	4	4	4	E	E	E	E	Severe
PORT	CHURCHLAND BLVD	TYRE NECK RD	HIGH ST	0.30	13,834	2003	12,000	10,000	4	4	4	4	E	E	E	E	Severe
PORT	CLEVELAND ST	CHAUTAUQUA AVE	M L K FWY	0.18	3,939	2003			2	0	0	0	-	-	-	-	NA
PORT	COUNTY ST	CONSTITUTION AVE	PENINSULA AVE	0.40	6,547	2003	7,000	11,000	3	3	3	3	B	B	B	B	Low to Moderate
PORT	COUNTY ST	PENINSULA AVE	ELM AVE	0.31	5,214	2003	6,000	10,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	COUNTY ST	ELM AVE	EFFINGHAM ST	0.33	4,555	2003	6,000	11,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	COURT ST	CRAWFORD ST	COUNTY ST	0.30	8,245	2003	9,000	11,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	COURT ST	COUNTY ST	HIGH ST	0.10	6,827	2003	8,000	8,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	COURT ST	HIGH ST	LONDON BLVD	0.10	4,236	2003	5,000	5,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	COURT ST	LONDON BLVD	CRAWFORD PKWY	0.24	1,199	2003	2,000	2,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	CRAWFORD PKWY	EFFINGHAM ST	CRAWFORD ST	0.43	4,574	2003	5,000	5,000	4	4	4	4	A	A	A	A	Low to Moderate
PORT	CRAWFORD ST	CRAWFORD PKWY	LONDON BLVD	0.22	3,994	2003	5,000	5,000	4	4	4	4	B	B	B	B	Low to Moderate
PORT	CRAWFORD ST	LONDON BLVD	HIGH ST	0.11	8,071	2003	9,000	9,000	4	4	4	4	B	B	B	B	Low to Moderate
PORT	CRAWFORD ST	HIGH ST	COUNTY ST	0.11	8,425	2003	9,000	10,000	4	4	4	4	B	B	B	B	Low to Moderate
PORT	CRAWFORD ST	COUNTY ST	COURT ST	0.23	8,699	2003	9,000	12,000	4	4	4	4	B	B	B	B	Low to Moderate
PORT	DEEP CREEK BLVD	VICTORY BLVD	GREENWOOD DR	0.83	6,615	2003	7,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
PORT	DEEP CREEK BLVD	GREENWOOD DR	PORTSMOUTH BLVD	0.73	8,790	2003	9,000	10,000	2	2	2	2	C	C	C	C	Low to Moderate
PORT	DEEP CREEK BLVD	PORTSMOUTH BLVD	FREDERICK BLVD	0.14	8,753	2003	9,000	10,000	2	2	2	2	C	C	C	C	Low to Moderate
PORT	DEEP CREEK BLVD	FREDERICK BLVD	DES MOINES AVE	0.77	6,577	2003	7,000	6,000	2	2	2	2	C	C	C	C	Low to Moderate
PORT	DES MOINES AVE	DEEP CREEK BLVD	I-264	0.10	8,809	2003	9,000	9,000	2	2	2	2	C	C	C	C	Low to Moderate
PORT	EFFINGHAM ST	FREDERICK BLVD	ELM AVE	0.35	20,457	2003	21,000	20,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	EFFINGHAM ST	ELM AVE	PORTSMOUTH BLVD	0.70	18,250	2003	15,000	17,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	EFFINGHAM ST	PORTSMOUTH BLVD	I-264	0.77	26,939	2003	27,000	26,000	6	6	6	6	B	A	B	A	Low to Moderate
PORT	EFFINGHAM ST	I-264	SOUTH ST	0.14	37,288	2003	35,000	39,000	6	6	6	6	B	B	B	B	Severe
PORT	EFFINGHAM ST	SOUTH ST	HIGH ST	0.21	28,192	2003	31,000	34,000	4	4	4	4	D	D	D	D	Moderate
PORT	EFFINGHAM ST	HIGH ST	LONDON BLVD	0.11	23,495	2003	26,000	23,000	4	4	4	4	D	D	D	D	Moderate
PORT	EFFINGHAM ST	LONDON BLVD	NORTH ST	0.10	17,317	2003	22,000	21,000	5	5	5	5	D	D	D	D	Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
PORT	EFFINGHAM ST	NORTH ST	CRAWFORD PKWY	0.19	16,878	2003	17,000	17,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	EFFINGHAM ST	CRAWFORD PKWY	ENT OSN HOSP	0.09	15,627	2003	19,000	12,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	ELM AVE	LONDON BLVD	HIGH ST	0.10	6,822	2003	7,000	14,000	3	3	3	3	C	C	C	C	Moderate
PORT	ELM AVE	HIGH ST	COUNTY ST	0.10	9,799	2003	10,000	13,000	6	4	4	4	C	C	C	C	Moderate
PORT	ELM AVE	COUNTY ST	SOUTH ST	0.19	10,434	2003	11,000	13,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	ELM AVE	SOUTH ST	I-264	0.09	9,401	2003	10,000	9,000	2	2	2	2	C	C	C	C	Low to Moderate
PORT	ELM AVE	I-264	PORTSMOUTH BLVD	0.70	9,086	2003	10,000	8,000	2	2	2	2	C	C	C	C	Low to Moderate
PORT	ELM AVE	PORTSMOUTH BLVD	GEORGE WASHINGTON HWY	0.34	7,087	2003	8,000	7,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	ELM AVE	GEORGE WASHINGTON HWY	VICTORY BLVD	0.70	9,628	2003	9,000	11,000	2	2	2	2	D	D	C	D	Moderate
PORT	ELM AVE	VICTORY BLVD	BURTONS POINT RD	0.30	9,757	2003	9,000	15,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	ELM AVE	BURTONS POINT RD	CHESAPEAKE CL	0.31	7,919	2003	9,000	14,000	2	2	2	2	C	C	C	D	Moderate
PORT	ELMHURST LN	AIRLINE BLVD	PORTSMOUTH BLVD	1.03	7,459	2003	8,000	8,000	4	4	4	4	A	A	A	A	Low to Moderate
PORT	FREDERICK BLVD	GEORGE WASHINGTON HWY	PORTSMOUTH BLVD	0.66	13,657	2003	14,000	14,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	FREDERICK BLVD	PORTSMOUTH BLVD	DEEP CREEK BLVD	0.08	15,518	2003	16,000	15,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	FREDERICK BLVD	DEEP CREEK BLVD	I-264	0.52	20,780	2003	21,000	23,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	FREDERICK BLVD	I-264	TURNPIKE RD	0.36	43,929	2003	46,000	48,000	4	4	4	4	E	F	F	F	Severe
PORT	FREDERICK BLVD	TURNPIKE RD	AIRLINE BLVD	0.51	26,835	2003	34,000	36,000	5	5	5	5	C	C	D	D	Moderate
PORT	FREDERICK BLVD	AIRLINE BLVD	HIGH ST	0.14	20,509	2003	21,000	22,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	GEORGE WASHINGTON HWY	CHESAPEAKE CL	VICTORY BLVD	0.17	30,183	2003	32,000	36,000	4	4	4	4	D	F	E	F	Severe
PORT	GEORGE WASHINGTON HWY	VICTORY BLVD	DAVIS ST	0.19	22,962	2003	23,000	23,000	5	5	5	5	D	D	D	D	Moderate
PORT	GEORGE WASHINGTON HWY	DAVIS ST	GREENWOOD DR	0.42	23,239	2003	24,000	24,000	4	4	4	4	C	B	C	B	Low to Moderate
PORT	GEORGE WASHINGTON HWY	GREENWOOD DR	FREDERICK BLVD	0.33	27,088	2003	27,000	22,000	4	4	4	4	C	D	C	D	Low to Moderate
PORT	GREENWOOD DR	AIRLINE BLVD	I-264	0.50	17,534	2003	18,000	20,000	4	4	4	4	B	C	B	C	Low to Moderate
PORT	GREENWOOD DR	I-264	CAVALIER BLVD	0.88	15,824	2003	17,000	17,000	4	4	4	4	B	B	B	C	Low to Moderate
PORT	GREENWOOD DR	CAVALIER BLVD	VICTORY BLVD	0.63	10,469	2003	11,000	15,000	4	4	4	4	B	B	B	B	Low to Moderate
PORT	GREENWOOD DR	VICTORY BLVD	INDEPENDENCE ST	1.05	4,428	2003	5,000	4,000	4	4	4	4	B	B	B	B	Low to Moderate
PORT	GREENWOOD DR	INDEPENDENCE ST	DEEP CREEK BLVD	0.37	3,926	2003	5,000	4,000	2	2	2	2	B	B	B	B	Low to Moderate
PORT	GREENWOOD DR	DEEP CREEK BLVD	GEORGE WASHINGTON HWY	0.51	3,375	2003	4,000	4,000	2	2	2	2	B	B	B	B	Low to Moderate
PORT	HIGH ST	TYRE NECK RD	CHURCHLAND BLVD	0.22	23,388	2003	23,000	22,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	HIGH ST	CHURCHLAND BLVD	CEDAR LA	0.89	33,493	2003	30,000	29,000	4	4	4	4	C	B	B	B	Low to Moderate
PORT	HIGH ST	CEDAR LA	FREDERICK BLVD	2.39	40,944	2003	34,000	30,000	4	4	4	4	F	F	F	F	Moderate
PORT	HIGH ST	FREDERICK BLVD	AIRLINE BLVD	0.12	18,264	2003	20,000	14,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	HIGH ST	AIRLINE BLVD	MT VERNON AVE	0.23	17,333	2003	18,000	12,000	5	5	5	5	C	C	C	C	Low to Moderate
PORT	HIGH ST	MT VERNON AVE	M L K FWY	0.48	19,625	2003	20,000	15,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	HIGH ST	M L K FWY	ELM AVE	0.79	17,589	2003	18,000	21,000	4	4	4	4	B	B	B	B	Low to Moderate
PORT	HIGH ST	ELM AVE	EFFINGHAM ST	0.33	12,009	2003	12,000	19,000	4	4	4	4	B	B	B	B	Low to Moderate
PORT	HIGH ST	EFFINGHAM ST	CRAWFORD ST	0.51	7,291	2003	7,000	11,000	2	2	2	2	C	C	C	C	Low to Moderate
PORT	LONDON BLVD	HIGH ST	MT VERNON AVE	0.31	26,000	2003	26,000	16,000	6	6	6	6	C	D	C	D	Low to Moderate
PORT	LONDON BLVD	MT VERNON AVE	M L K FWY	0.40	26,000	2003	26,000	20,000	6	6	6	6	C	D	C	D	Low to Moderate
PORT	LONDON BLVD	M L K FWY	ELM AVE	0.86	27,192	2003	28,000	33,000	6	6	6	6	C	D	C	D	Moderate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
PORT	LONDON BLVD	ELM AVE	EFFINGHAM ST	0.32	23,357	2003	24,000	21,000	6	6	6	6	C	D	C	D	Low to Moderate
PORT	LONDON ST	EFFINGHAM ST	CRAWFORD ST	0.50	8,166	2003	9,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
PORT	HARBOR ST	TURNPIKE RD	HIGH ST	0.16	4,302	2003	5,000	12,000	2	2	2	2	C	C	C	C	Low to Moderate
PORT	MIDTOWN TUNNEL	MLK FWY/WESTERN FREEWAY	NORFOLK CL	0.95	35,309	2003	38,000	64,000	2	2	2	2	F	F	F	F	Severe
PORT	MT VERNON AVE	HIGH ST	LONDON BLVD	0.14	5,529	2003			4	0	0	0	-	-	-	-	NA
PORT	MT VERNON AVE	LONDON BLVD	BAYVIEW BLVD	1.22	15,849	2003			2	0	0	0	-	-	-	-	NA
PORT	PORTCENTRE PKWY	PORTSMOUTH BLVD	CRAWFORD ST	0.68	9,599	2003	10,000	11,000	4	4	4	4	D	D	D	D	Moderate
PORT	PORTSMOUTH BLVD	CHESAPEAKE CL	ELMHURST LN	1.01	31,792	2003	33,000	36,000	4	4	4	4	C	D	C	E	Severe
PORT	PORTSMOUTH BLVD	ELMHURST LN	VICTORY BLVD	1.19	30,228	2003	31,000	26,000	4	4	4	4	C	D	C	D	Moderate
PORT	PORTSMOUTH BLVD	VICTORY BLVD	AIRLINE BLVD	0.22	22,138	2003	23,000	21,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	PORTSMOUTH BLVD	AIRLINE BLVD	TURNPIKE RD	0.10	18,161	2003	19,000	23,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	PORTSMOUTH BLVD	TURNPIKE RD	I-264	0.35	14,720	2003	16,000	18,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	PORTSMOUTH BLVD	I-264	DEEP CREEK BLVD	1.07	12,161	2003	12,000	13,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	PORTSMOUTH BLVD	DEEP CREEK BLVD	FREDERICK BLVD	0.17	8,134	2003	8,000	9,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	PORTSMOUTH BLVD	FREDERICK BLVD	ELM AVE	0.77	7,835	2003	8,000	10,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	PORTSMOUTH BLVD	ELM AVE	EFFINGHAM ST	0.34	6,064	2003	6,000	8,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	PORTSMOUTH BLVD	EFFINGHAM ST	PORTCENTRE PKWY	0.54	5,260	2003	6,000	5,000	2	2	2	2	D	D	D	D	Moderate
PORT	TOWN POINT RD	SUFFOLK CL	TWIN PINES RD	0.72	12,048	2003	12,000	14,000	2	2	2	2	C	C	C	C	Moderate
PORT	TOWN POINT RD	TWIN PINES RD	WESTERN FREEWAY	0.11	30,426	2003	30,000	30,000	4	4	4	4	E	E	E	E	Severe
PORT	TOWN POINT RD	WESTERN FREEWAY	CHESAPEAKE CL	0.25	25,220	2003	25,000	28,000	4	4	4	4	C	C	C	C	Moderate
PORT	TURNPIKE RD	PORTSMOUTH BLVD	FREDERICK BLVD	1.06	7,488	2003	8,000	13,000	2	2	2	**4**	D	D	D	D	Low to Moderate
PORT	TURNPIKE RD	FREDERICK BLVD	HOWARD ST	0.29	15,167	2003	16,000	19,000	2	2	2	**4**	D	E	E	E	Low to Moderate
PORT	TURNPIKE RD	HOWARD ST	HARBOR DR	0.53	10,781	2003	13,000	18,000	2	2	2	**4**	D	D	D	D	Low to Moderate
PORT	TURNPIKE RD	HARBOR DR	COUNTY ST	0.10	10,781	2003	13,000	23,000	3	3	3	**4**	D	D	D	D	Moderate
PORT	TWIN PINES RD	TOWN POINT RD	HEDGEROW LN	1.38	10,957	2003	11,000	10,000	2	2	2	2	D	D	D	D	Moderate
PORT	TYRE NECK RD	CHESAPEAKE CL	HIGH ST	0.24	12,400	2003	13,000	14,000	2	2	2	**4**	D	E	D	E	Low to Moderate
PORT	TYRE NECK RD	HIGH ST	CHURCHLAND BLVD	0.18	5,592	2003	6,000	7,000	2	2	2	**4**	E	E	E	E	Low to Moderate
PORT	TYRE NECK RD	CHURCHLAND BLVD	WEST NORFOLK RD	0.07	3,593	2003	4,000	6,000	2	2	2	2	E	E	E	E	Severe
PORT	VICTORY BLVD	PORTSMOUTH BLVD	AIRLINE BLVD	0.20	8,111	2003	9,000	8,000	4	4	4	4	D	D	D	D	Moderate
PORT	VICTORY BLVD	AIRLINE BLVD	I-264	0.36	26,716	2003	28,000	24,000	6	6	6	6	D	E	D	E	Moderate
PORT	VICTORY BLVD	I-264	GREENWOOD DR	0.55	26,304	2003	8,000	26,000	4	4	4	4	D	D	C	C	Moderate
PORT	VICTORY BLVD	GREENWOOD DR	DEEP CREEK BLVD	1.08	18,408	2003	20,000	19,000	4	4	4	4	C	C	C	C	Low to Moderate
PORT	VICTORY BLVD	DEEP CREEK BLVD	GEORGE WASHINGTON HWY	0.44	18,956	2003	20,000	22,000	5	5	5	5	C	C	C	C	Low to Moderate
PORT	VICTORY BLVD	GEORGE WASHINGTON HWY	AFTON PKWY	1.24	7,446	2003	13,000	15,000	4	4	4	4	B	B	D	E	Severe
PORT	VICTORY BLVD	AFTON PKWY	ELM AVE	0.57	7,321	2003	9,000	15,000	4	4	4	4	C	C	D	C	Moderate
PORT	W NORFOLK RD	CHURCHLAND BLVD	TYRE NECK RD	0.11	3,906	2003	4,000	5,000	2	2	2	2	D	D	D	D	Moderate
PORT	W NORFOLK RD	TYRE NECK RD	CEDAR LN	1.02	6,685	2003	7,000	11,000	2	2	2	2	D	D	D	D	Severe
PORT	W NORFOLK RD	CEDAR LN	WESTERN FWY	1.58	6,084	2003	8,000	7,000	4	4	4	4	B	B	B	B	Low to Moderate
PORT	WESLEY ST	CHAUTAUQUA AVE	MLK FWY	0.22	12,409	2000			2	0	0	0	-	-	-	-	NA
PORT	WESTERN BRANCH BLVD	CHESAPEAKE CL	TYRE NECK RD	0.21	23,758	2003	24,000	23,000	4	4	4	4	D	E	D	E	Severe

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
SUF	BENNETTS PASTURE RD	KINGS HWY	BRIDGE RD	3.38	7,091	2002	10,000	20,000	2	2	2	2	D	C	D	D	Severe
SUF	BRIDGE RD	ISLE OF WIGHT CL	E. END CHUCKATUCK BRIDGE	0.60	11,538	2002	16,000	23,000	2	2	2	2	D	D	D	D	Severe
SUF	BRIDGE RD	E. END CHUCKATUCK BRIDGE	CRITTENDEN RD	0.57	11,538	2002	16,000	23,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	BRIDGE RD	CRITTENDEN RD	N. END NANSEMOND RIVER	0.79	14,966	2002	18,000	25,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	BRIDGE RD	N. END NANSEMOND RIVER	S. END NANSEMOND RIVER	0.93	14,966	2002	18,000	25,000	2	2	2	2	D	D	E	E	Severe
SUF	BRIDGE RD	S. END NANSEMOND RIVER	BENNETTS PASTURE RD	0.75	14,966	2002	18,000	25,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	BRIDGE RD	BENNETTS PASTURE RD	SHOULDERS HILL RD	1.58	23,441	2002	31,000	35,000	4	4	4	4	B	B	B	B	Moderate
SUF	BRIDGE RD	SHOULDERS HILL RD	HARBOR VIEW BLVD	1.34	23,441	2002	31,000	41,000	4	4	4	4	B	B	B	B	Severe
SUF	BRIDGE RD	HARBOR VIEW BLVD	WESTERN FWY	0.10	23,441	2002	31,000	40,000	4	4	4	4	B	B	B	B	Severe
SUF	BRIDGE RD	WESTERN FWY	I-664	0.43	23,441	2002	31,000	25,000	4	4	4	4	B	B	B	B	Low to Moderate
SUF	BRIDGE RD	I-664	COLLEGE DR	0.54	17,648	2002	19,000	22,000	4	4	4	4	B	C	C	C	Low to Moderate
SUF	BRIDGE RD	COLLEGE DR	CHESAPEAKE CL	0.07	22,415	2003	24,000	25,000	4	4	4	4	C	C	C	C	Low to Moderate
SUF	CAROLINA RD	NC STATE LINE	RTE 642	2.89	3,507	2002	4,000	8,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	CAROLINA RD	RTE 642	RTE 675	2.06	4,017	2002	4,000	8,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	CAROLINA RD	RTE 675	BABBTOWN RD (RTE 759)	1.40	4,026	2002	4,000	8,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	CAROLINA RD	BABBTOWN RD (RTE 759)	WHALEYVILLE BLVD	3.08	4,636	2002	5,000	8,000	2	2	2	2	C	C	C	C	Low to Moderate
SUF	CAROLINA RD	WHALEYVILLE BLVD	TURLINGTON RD	0.87	15,342	2002	16,000	23,000	4	4	4	4	A	B	A	B	Low to Moderate
SUF	CAROLINA RD	TURLINGTON RD	SUFFOLK SW BYPASS	0.61	15,342	2002	16,000	24,000	4	4	4	4	A	B	A	B	Low to Moderate
SUF	CAROLINA RD	SUFFOLK SW BYPASS	FAYETTE ST	1.84	15,083	2002	15,000	22,000	4	4	4	4	B	B	B	B	Low to Moderate
SUF	COLLEGE DR	BRIDGE RD	WESTERN FREEWAY	0.14	14,765	2002	16,000	14,000	4	4	4	4	D	D	D	D	Moderate
SUF	COLLEGE DR	WESTERN FREEWAY	TOWN POINT RD	0.74	16,473	2002	20,000	27,000	4	4	4	4	C	C	C	C	Moderate
SUF	COLLEGE DR	TOWN POINT RD	I-664	0.70	19,810	2002	22,000	20,000	4	4	4	4	C	C	C	C	Low to Moderate
SUF	COLLEGE DR	I-664	HARBOR VIEW BLVD	0.60	8,277	2002	10,000	8,000	2	2	2	2	C	C	D	C	Low to Moderate
SUF	CONSTANCE RD	HOLLAND RD	PITCHKETTLE RD	0.28	9,964	2002	10,000	10,000	2	2	2	2	C	D	C	D	Moderate
SUF	CONSTANCE RD	PITCHKETTLE RD	MAIN ST	0.85	11,156	2002	11,000	13,000	2	2	2	2	C	D	C	D	Moderate
SUF	CONSTANCE RD	MAIN ST	WILROY RD	0.88	15,066	2002	16,000	24,000	4	4	4	4	C	C	C	C	Moderate
SUF	COPELAND RD	ROUTE 58	WHALEYVILLE BLVD	5.26	990	2002	1,000	1,000	2	2	2	2	A	A	A	A	Low to Moderate
SUF	COPELAND RD	WHALEYVILLE BLVD	CAROLINA RD	1.56	720	2002	1,000	1,000	2	2	2	2	A	A	A	A	Low to Moderate
SUF	CRITTENDEN RD	KINGS HWY	BRIDGE RD (RTE 17)	5.26	1,753	2002	4,000	8,000	2	2	2	2	C	B	C	C	Low to Moderate
SUF	EVERETTS RD	LAKE PRINCE DR (RTE 604)	MOORE FARM LN	1.42	1,820	2002	2,000	2,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	EVERETTS RD	MOORE FARM LN	GODWIN BLVD	0.93	1,740	2002	2,000	2,000	2	2	2	2	B	C	C	C	Low to Moderate
SUF	FINNEY AVE	N MAIN ST	PINNER ST	0.20	7,186	2002	7,000	5,000	2	2	2	2	C	D	C	D	Low to Moderate
SUF	GODWIN BLVD	PRUDEN BLVD	SUFFOLK BYPASS	0.54	18,732	2002	19,000	22,000	4	4	4	4	B	B	B	B	Low to Moderate
SUF	GODWIN BLVD	SUFFOLK BYPASS	KINGS FORK RD	1.40	10,393	2002	13,000	24,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	GODWIN BLVD	KINGS FORK ROAD	1.36 MI N OF KINGS FORK RD	1.36	10,393	2002	13,000	16,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	GODWIN BLVD	1.36 MILES N OF KINGS FORK RD	EVERETS RD	3.46	10,393	2002	13,000	15,000	2	2	2	2	D	D	D	D	Moderate
SUF	GODWIN BLVD	EVERETS RD	KINGS HWY	0.87	10,393	2002	13,000	19,000	2	2	2	2	D	D	D	D	Severe
SUF	GODWIN BLVD	KINGS HWY	ISLE OF WIGHT CL	1.31	10,348	2002	14,000	15,000	2	2	2	2	C	D	D	E	Severe
SUF	HARBOUR VIEW BLVD	BRIDGE RD	TOWN POINT RD	1.02	2,200	2000	4,000	7,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	HOLLAND RD (BUS RTE 58)	SUFFOLK BYPASS	CONSTANCE RD	1.86	12,426	2002	13,000	14,000	2	2	2	2	B	C	B	C	Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
SUF	HOLLAND RD (BUS RTE 58)	RURITAN BLVD	HOLLAND RD (RTE 58)	0.70	3,284	2002	4,000	5,000	2	2	2	2	B	C	C	C	Low to Moderate
SUF	KINGS FORK RD	PITCHKETTLE RD	PRUDEN BLVD	0.64	2,044	2002	2,000	3,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	KINGS FORK RD	PRUDEN BLVD	GODWIN BLVD	2.27	2,931	2002	3,000	7,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	KINGS HWY	GODWIN BLVD	CRITTENDEN RD	0.69	2,681	2002	4,000	10,000	2	2	2	2	C	C	C	C	Low to Moderate
SUF	KINGS HWY	CRITTENDEN RD	BENNETTS PASTURE RD	5.07	2,681	2002	4,000	7,000	2	2	2	2	B	B	C	C	Low to Moderate
SUF	KINGS HWY	BENNETTS PASTURE RD	NANSEMOND PKWY	0.48	2,681	2002	4,000	10,000	2	2	2	2	C	C	C	C	Low to Moderate
SUF	LAKE PRINCE DR (RTE 604)	RTE 460 (PRUDEN BLVD)	RTE 603 (EVERETS RD)	3.93	1,744	2002	2,000	3,000	2	2	2	2	B	B	C	C	Low to Moderate
SUF	MAIN ST	FAYETTE ST	WASHINGTON ST	0.35	13,300	2002	13,000	16,000	4	4	4	4	C	C	C	C	Low to Moderate
SUF	MAIN ST	WASHINGTON ST	CONSTANCE RD	0.67	21,500	2002	22,000	28,000	4	4	4	4	C	C	C	C	Moderate
SUF	MAIN ST	CONSTANCE RD	GODWIN BLVD	1.41	28,692	2003	30,000	35,000	4	4	4	4	C	C	C	C	Moderate
SUF	MARKET ST	WASHINGTON ST	MAIN ST	0.49	5,020	2002	5,000	8,000	4	4	4	4	B	B	B	B	Low to Moderate
SUF	NANSEMOND PKWY	WILROY RD	KINGS HWY	3.05	6,280	2002	8,000	17,000	2	2	2	2	C	C	C	C	Severe
SUF	NANSEMOND PKWY	KINGS HWY	SHOULDERS HILL RD	1.77	11,171	2002	14,000	23,000	2	2	2	2	C	C	D	D	Severe
SUF	NANSEMOND PKWY	SHOULDERS HILL RD	CHESAPEAKE CL	0.75	11,171	2002	14,000	24,000	2	2	2	2	C	C	C	C	Severe
SUF	PINNER ST	WASHINGTON ST	CONSTANCE RD	1.24	7,930	2002	8,000	12,000	2	2	2	2	C	C	C	C	Moderate
SUF	PITCHKETTLE RD	CONSTANCE RD	SUFFOLK BYPASS	1.36	3,022	2002	3,000	5,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	PITCHKETTLE RD	SUFFOLK BYPASS	KINGS FORK RD	2.41	1,766	2002	2,000	4,000	2	2	2	2	C	C	C	C	Low to Moderate
SUF	PORTSMOUTH BLVD	WILROY RD	WASHINGTON ST	1.59	9,266	1999	10,000	15,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	PORTSMOUTH BLVD	WASHINGTON ST	SUFFOLK BYPASS	1.04	23,335	2002	24,000	30,000	4	4	4	4	B	B	B	B	Moderate
SUF	PROVIDENCE RD (RTE 604)	KINGS FORK RD	RTE 460 (PRUDEN BLVD)	0.50	1,079	2002	1,000	4,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	PRUDEN BLVD	ISLE OF WIGHT CL	LAKE PRINCE DR	3.08	15,245	2002	18,000	16,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	PRUDEN BLVD	LAKE PRINCE DR	KINGS FORK RD	0.58	15,245	2002	18,000	18,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	PRUDEN BLVD	KINGS FORK RD	SUFFOLK BYPASS	1.47	15,245	2002	18,000	19,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	PRUDEN BLVD	SUFFOLK BYPASS	GODWIN BLVD	1.10	13,208	2002	13,000	19,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	PUGHSVILLE RD	SHOULDERS HILL RD	TOWN POINT RD	1.20	3,175	2002	4,000	10,000	2	2	2	2	A	B	B	B	Low to Moderate
SUF	PUGHSVILLE RD	TOWN POINT RD	CHESAPEAKE CL	0.08	7,231	2002	9,000	13,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	ROUTE 58	SOUTHAMPTON CL	RTE 189/260	1.34	17,340	2002	18,000	26,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	ROUTE 58	RTE 189/260	RTE 272 (S. QUAY RD)	1.26	17,513	2002	18,000	30,000	4	4	4	4	A	A	A	A	Moderate
SUF	ROUTE 58	RTE 272	HOLLAND BYPASS	4.17	18,297	2002	19,000	24,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	ROUTE 58 (HOLLAND BYPASS)	S. QUAY RD (ROUTE 189)	RTE 58 (HOLLAND RD)	1.19	18,741	2002	21,000	30,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	ROUTE 58 (HOLLAND RD)	HOLLAND RD	RTE 649 (LUMMIS RD)	4.01	21,893	2002	22,000	31,000	4	4	4	4	A	A	A	A	Moderate
SUF	ROUTE 58 (HOLLAND RD)	RTE 649 (LUMMIS RD)	RTE 643 (MANNING BRIDGE RD)	2.05	23,354	2002	25,000	40,000	4	4	4	4	A	A	A	A	Severe
SUF	ROUTE 58 (HOLLAND RD)	RTE. 643 (MANNING BRIDGE RD)	COVE POINT DR	1.03	28,450	2002	30,000	40,000	4	4	4	4	C	C	C	C	Severe
SUF	ROUTE 58 (HOLLAND RD)	COVE POINT DR	SUFFOLK BYPASS	1.20	29,314	2002	31,000	40,000	4	4	4	4	C	C	C	C	Severe
SUF	ROUTE 189 (IN HOLLAND)	BUS RTE 58 (RURITAN BLVD)	RTE 58 (SOUTH OF HOLLAND)	0.37	752	2002	1,000	1,000	2	2	2	2	A	B	A	B	Low to Moderate
SUF	ROUTE 189	SOUTHAMPTON CL	RTE 272	2.08	1,939	2002	3,000	5,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	ROUTE 189	RTE 272	RTE 58	0.83	4,159	2002	5,000	6,000	2	2	2	2	C	C	C	C	Low to Moderate
SUF	ROUTE 258	ISLE OF WIGHT CL	RTE 58	0.83	3,372	2002	4,000	7,000	2	2	2	2	C	B	C	C	Low to Moderate
SUF	ROUTE 272	ROUTE 189	ROUTE 58	1.33	1,406	2002	2,000	6,000	2	2	2	2	A	B	B	B	Low to Moderate
SUF	ROUTE 616	ROUTE 58	WHALEYVILLE BLVD	11.50	231	2002	1,000	4,000	2	2	2	2	A	A	B	B	Low to Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
SUF	ROUTE 616	WHALEYVILLE BLVD	CAROLINA RD	6.70	370	2002	1,000	1,000	2	2	2	2	A	A	B	B	Low to Moderate
SUF	RURITAN BLVD (BUS RTE 58)	ISLE OF WIGHT CL	RTE 189 (HOLLAND RD BUS)	2.65	2,891	2002	3,000	4,000	3	3	3	3	B	B	B	B	Low to Moderate
SUF	SHOULDERS HILL RD	NANSEMOND PKWY	PUGHSVILLE RD	1.44	4,727	2002	6,000	10,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	SHOULDERS HILL RD	PUGHSVILLE RD	BRIDGE RD	1.63	4,893	2002	6,000	11,000	2	2	2	2	B	B	C	C	Low to Moderate
SUF	TOWN POINT RD	PUGHSVILLE RD	BRIDGE RD	1.71	1,165	2003	2,000	4,000	2	2	2	2	B	B	B	B	Low to Moderate
SUF	TOWN POINT RD	HARBOUR VIEW BLVD	COLLEGE DR	0.80	5,466	2002	9,000	19,000	4	4	4	4	A	A	A	A	Low to Moderate
SUF	TOWN POINT RD	COLLEGE DR	PORTSMOUTH CL	0.60	12,048	2003	12,000	14,000	4	4	4	4	A	A	A	A	Moderate
SUF	WASHINGTON ST	W CONSTANCE RD	SARATOGA ST	0.84	10,471	2002	11,000	13,000	2	2	2	2	C	D	D	D	Moderate
SUF	WASHINGTON ST	SARATOGA ST	MAIN ST	0.08	7,992	2002	9,000	11,000	3	3	3	3	C	D	C	D	Moderate
SUF	WASHINGTON ST	MAIN ST	PINNER ST	0.20	11,243	2002	12,000	14,000	2	2	2	2	C	C	C	C	Moderate
SUF	WASHINGTON ST	PINNER ST	PORTSMOUTH BLVD	2.84	13,981	2002	15,000	19,000	2	2	2	2	B	B	B	B	Severe
SUF	WHALEYVILLE BLVD	NC STATE LINE	RTE 616 (MINERAL SPRING RD)	5.37	5,150	2003	6,000	12,000	2	2	2	2	C	C	C	C	Low to Moderate
SUF	WHALEYVILLE BLVD	RTE 616 (MINERAL SPRING RD)	RTE 677 (GREAT FORK RD)	1.27	6,332	2002	7,000	12,000	2	2	2	2	C	C	C	C	Low to Moderate
SUF	WHALEYVILLE BLVD	RTE 677 (GREAT FORK RD)	RTE 675 (CYPRESS CHAPEL RD)	0.83	7,947	2002	8,000	12,000	2	2	2	2	C	D	C	D	Moderate
SUF	WHALEYVILLE BLVD	RTE 675 (CYPRESS CHAPEL RD)	RTE 759 (BABBTOWN RD)	3.28	8,992	2002	9,000	12,000	2	2	2	2	C	D	C	D	Moderate
SUF	WHALEYVILLE BLVD	RTE 759 (BABBTOWN RD)	RTE 32 (CAROLINA RD)	2.56	9,387	2002	10,000	12,000	2	2	2	2	C	D	C	D	Moderate
SUF	WILROY RD	CONSTANCE RD	SUFFOLK BYPASS	1.98	7,617	2002	8,000	8,000	2	2	2	2	C	C	C	C	Low to Moderate
SUF	WILROY RD	SUFFOLK BYPASS	NANSEMOND PKWY	1.89	8,024	2002	9,000	12,000	2	2	2	2	C	C	C	C	Low to Moderate
VB	21ST ST	PARKS AVE	PACIFIC AVE	0.53	14,981	2003	15,000	14,000	4	4	4	4	C	C	C	C	Low to Moderate
VB	21ST ST	PACIFIC AVE	ATLANTIC AVE	0.06	6,786	2000	7,000	4,000	3	3	3	3	C	C	C	C	Low to Moderate
VB	22ND ST	PARKS AVE	PACIFIC AVE	0.53	11,720	2003	13,000	14,000	4	4	4	4	C	C	C	C	Low to Moderate
VB	22ND ST	PACIFIC AVE	ATLANTIC AVE	0.06	3,735	2003	4,000	3,000	3	3	3	3	C	C	C	C	Low to Moderate
VB	ATLANTIC AVE	83RD ST	PACIFIC AVE	2.62	26,014	2003	26,000	30,000	4	4	4	4	B	B	B	B	Moderate
VB	ATLANTIC AVE	PACIFIC AVE	LASKIN RD	0.85	5,931	2003	7,000	9,000	2	2	2	2	A	A	A	A	Moderate
VB	ATLANTIC AVE	LASKIN RD	25TH ST	0.41	7,000	2003	8,000	4,000	2	2	2	2	B	B	B	B	Low to Moderate
VB	ATLANTIC AVE	25TH ST	22ND AVE	0.24	7,000	2003	8,000	4,000	2	2	2	2	B	B	B	B	Low to Moderate
VB	ATLANTIC AVE	22ND AVE	21ST AVE	0.07	8,000	2003	9,000	4,000	2	2	2	2	D	D	D	D	Low to Moderate
VB	ATLANTIC AVE	21ST ST	VA BEACH BLVD	0.27	11,280	2003	12,000	6,000	2	2	2	2	D	D	D	D	Low to Moderate
VB	ATLANTIC AVE	VA BEACH BLVD	5TH ST	0.82	8,357	2003	9,000	6,000	2	2	2	2	B	B	B	C	Low to Moderate
VB	BAKER RD	NEWTOWN RD	WITCHDUCK RD	1.33	DNE	2003		15,000	0	0	0	**2**	-	-	-	-	Low to Moderate
VB	BAXTER RD	PRINCESS ANNE RD	INDEPENDENCE BLVD	0.96	24,393	2003	25,000	23,000	4	4	4	4	D	D	D	D	Moderate
VB	BIRDNECK RD	GENERAL BOOTH BLVD	NORFOLK AVE	2.29	18,116	2003	22,000	16,000	2	2	**4**	4	C	C	B	B	Low to Moderate
VB	BIRDNECK RD	NORFOLK AVE	VA BEACH BLVD	0.31	18,880	2003	22,000	25,000	4	4	4	4	D	D	D	D	Moderate
VB	BIRDNECK RD	VA BEACH BLVD	I-264	0.33	36,411	2003	41,000	30,000	4	4	4	4	E	E	E	F	Moderate
VB	BIRDNECK RD	I-264	LASKIN RD	0.58	24,858	2003	26,000	30,000	4	4	4	4	D	D	D	E	Severe
VB	BLACKWATER RD	PUNGO FERRY RD	CHESAPEAKE CL	4.47	2,475	2003	3,000	7,000	2	2	2	2	B	B	C	C	Low to Moderate
VB	CENTERVILLE TNPK	CHESAPEAKE CL	LYNNHAVEN PKWY	0.38	8,477	2003	12,000	21,000	2	2	2	**4**	C	C	C	D	Low to Moderate
VB	CENTERVILLE TNPK	LYNNHAVEN PKWY	KEMPSVILLE RD	0.75	13,987	2003	15,000	28,000	2	2	2	**4**	C	C	D	D	Moderate
VB	CENTERVILLE TNPK	KEMPSVILLE RD	JAKE SEARS RD	0.88	17,414	2003	19,000	34,000	2	2	2	**6**	D	E	E	E	Low to Moderate
VB	CENTERVILLE TNPK	JAKE SEARS RD	INDIAN RIVER RD	0.95	17,414	2003	19,000	35,000	2	2	2	**6**	D	E	D	E	Low to Moderate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
VB	CHESAPEAKE BAY BRIDGE-TUNNEL	SHORE DR	TOLL PLAZA	0.91	8,123	2003	10,000	11,000	4	4	4	4	A	A	A	A	Low to Moderate
VB	CHESAPEAKE BAY BRIDGE-TUNNEL	TOLL PLAZA	NCL VA BEACH	0.24	8,123	2003	10,000	11,000	4	4	4	4	A	A	A	A	Low to Moderate
VB	DAM NECK RD	PRINCESS ANNE RD	ROSEMONT RD	0.44	35,390	2003	39,000	30,000	4	4	4	4	C	D	D	D	Moderate
VB	DAM NECK RD	ROSEMONT RD	HOLLAND RD	0.55	35,390	2003	39,000	31,000	4	4	4	4	C	D	D	D	Severe
VB	DAM NECK RD	HOLLAND RD	LONDON BRIDGE EXTENDED	0.72	42,733	2003	44,000	37,000	4	4	4	4	B	C	C	C	Low to Moderate
VB	DAM NECK RD	LONDON BRIDGE EXTENDED	LONDON BRIDGE RD	0.86	49,046	2003	52,000	36,000	4	4	4	4	C	F	C	F	Severe
VB	DAM NECK RD	LONDON BRIDGE RD	S.E. PARKWAY	1.95	29,676	2003	33,000	23,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	DAM NECK RD	S.E. PARKWAY	GENERAL BOOTH BLVD	1.02	26,902	2003	30,000	35,000	4	4	4	4	B	B	B	B	Severe
VB	DAM NECK RD	GENERAL BOOTH BLVD	UPTON DR	0.40	34,615	2003	35,000	36,000	4	4	4	4	F	D	F	D	Severe
VB	DAM NECK RD	UPTON DR	USN TRAINING CENTER	1.70	18,833	2003	19,000	20,000	4	4	4	4	C	B	C	B	Moderate
VB	DIAMOND SPRINGS RD	NEWTOWN RD	WESLEYAN RD	0.41	21,976	2003	23,000	26,000	4	4	4	4	B	B	B	B	Moderate
VB	DIAMOND SPRINGS RD	WESLEYAN RD	NORTHAMPTON BLVD	1.22	22,192	2002	23,000	27,000	4	4	4	4	B	B	B	B	Moderate
VB	DIAMOND SPRINGS RD	NORTHAMPTON BLVD	SHORE DR	1.32	28,848	2003	31,000	39,000	4	4	4	4	B	B	C	B	Severe
VB	ELBOW RD	CHESAPEAKE CL	INDIAN RIVER RD	0.32	5,096	2003	6,000	0	2	2	2	2	C	D	C	D	NA
VB	ELBOW RD	INDIAN RIVER RD	SALEM RD	1.21	5,735	2003	11,000	27,000	2	2	2	**4**	C	C	D	D	Moderate
VB	ELBOW RD EXTENDED	SALEM RD	PRINCESS ANNE RD	2.96	DNE		8,000	16,000	0	0	**2**	**4**	-	-	C	C	Low to Moderate
VB	FERRELL PKWY	INDIAN RIVER RD	PRINCESS ANNE RD	2.74	40,307	2003	42,000	29,000	4	4	4	4	B	C	B	C	Low to Moderate
VB	FIRST COLONIAL RD	VA BEACH BLVD	I-264	0.22	42,000	2003	46,000	19,000	4	4	4	4	C	D	C	E	Low to Moderate
VB	FIRST COLONIAL RD	I-264	LASKIN RD	0.35	40,764	2003	42,000	48,000	4	4	4	4	C	C	C	D	Severe
VB	FIRST COLONIAL RD	LASKIN RD	OLD DONATION PKWY	1.10	42,667	2003	44,000	49,000	4	4	4	**6**	C	C	C	D	Severe
VB	FIRST COLONIAL RD	OLD DONATION PKWY	GREAT NECK RD	0.89	18,136	2003	20,000	49,000	4	4	4	**6**	A	B	A	B	Severe
VB	GENERAL BOOTH BLVD	PRINCESS ANNE RD	NIMMO PKWY	0.30	35,389	2003	40,000	22,000	4	4	4	4	B	C	B	C	Low to Moderate
VB	GENERAL BOOTH BLVD	NIMMO PKWY	LONDON BRIDGE RD	0.56	33,076	2002	36,000	37,000	4	4	4	4	B	B	B	C	Low to Moderate
VB	GENERAL BOOTH BLVD	LONDON BRIDGE RD	DAM NECK RD	1.51	35,008	2002	38,000	40,000	4	4	4	4	B	C	B	C	Moderate
VB	GENERAL BOOTH BLVD	DAM NECK RD	OCEANA BLVD/PROSPERITY RD	0.60	63,086	2003	66,000	52,000	6	6	6	6	B	B	B	B	Low to Moderate
VB	GENERAL BOOTH BLVD	OCEANA BLVD/PROSPERITY RD	BIRDNECK RD	1.20	38,060	2003	39,000	28,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	GENERAL BOOTH BLVD	BIRDNECK RD	HARBOUR POINT	1.61	24,532	2003	26,000	14,000	4	4	4	4	A	A	A	A	Low to Moderate
VB	GREAT NECK RD	POTTERS RD	I-264	0.31	17,882	2003	24,000	25,000	2	2	**4**	4	C	F	B	B	Moderate
VB	GREAT NECK RD	I-264	VA BEACH BLVD	0.05	17,882	2003	24,000	25,000	2	2	**4**	4	C	F	B	B	Moderate
VB	GREAT NECK RD	VA BEACH BLVD	FIRST COLONIAL RD	2.36	41,260	2003	44,000	43,000	4	4	4	4	B	B	C	C	Low to Moderate
VB	GREAT NECK RD	FIRST COLONIAL RD	SHOREHAVEN RD	0.98	44,499	2003	46,000	51,000	6	6	6	6	B	B	B	B	Low to Moderate
VB	GREAT NECK RD	SHOREHAVEN RD	SHORE DR	2.24	38,158	2003	40,000	34,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	HAYGOOD RD	NEWTOWN RD	WESLEYAN DR	0.25	7,268	2003	8,000	6,000	2	2	2	2	C	C	C	C	Low to Moderate
VB	HAYGOOD RD	WESLEYAN DR	INDEPENDENCE BLVD	1.10	19,559	2003	21,000	23,000	4	4	4	4	B	C	C	C	Low to Moderate
VB	HOLLAND RD	INDEPENDENCE BLVD	SOUTH PLAZA TRAIL	0.33	41,923	2003	43,000	37,000	4	4	4	4	C	D	C	D	Moderate
VB	HOLLAND RD	SOUTH PLAZA TRAIL	ROSEMONT RD	1.32	38,667	2003	41,000	40,000	4	4	4	4	C	C	C	D	Moderate
VB	HOLLAND RD	ROSEMONT RD	LYNNHAVEN PKWY	1.15	32,587	2003	36,000	46,000	4	4	4	**6**	C	C	C	C	Moderate
VB	HOLLAND RD	LYNNHAVEN PKWY	DAM NECK RD	1.07	35,039	2003	37,000	43,000	4	4	4	**6**	C	C	C	C	Moderate
VB	HOLLAND RD	DAM NECK RD	NIMMO PKWY	1.93	16,991	2003	19,000	26,000	2	2	2	**4**	C	D	D	D	Moderate
VB	HOLLAND RD	NIMMO PKWY	PRINCESS ANNE RD	0.76	11,546	2003	13,000	10,000	2	2	2	2	C	D	D	D	Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
VB	INDEPENDENCE BLVD	INDIAN RIVER RD	SALEM RD	1.93	7,206	2003	8,000	8,000	2	2	2	2	B	B	B	B	Low to Moderate
VB	INDEPENDENCE BLVD	SALEM RD	PRINCESS ANNE RD	0.77	21,423	2003	22,000	18,000	4	4	4	4	B	C	B	C	Low to Moderate
VB	INDEPENDENCE BLVD	PRINCESS ANNE RD	LYNNHAVEN PKWY	0.55	28,115	2003	30,000	28,000	4	4	4	4	C	C	C	C	Low to Moderate
VB	INDEPENDENCE BLVD	LYNNHAVEN PKWY	PLAZA TRAIL	1.65	36,718	2002	38,000	32,000	4	4	4	4	C	D	C	D	Moderate
VB	INDEPENDENCE BLVD	PLAZA TRAIL	HOLLAND RD	0.76	35,112	2003	37,000	29,000	4	4	4	4	C	F	C	F	Moderate
VB	INDEPENDENCE BLVD	HOLLAND RD	BAXTER RD	0.80	80,128	2003	85,000	72,000	8	8	8	8	C	F	D	F	Severe
VB	INDEPENDENCE BLVD	BAXTER RD	I-264	0.23	86,008	2003	91,000	92,000	8	8	8	8	D	F	D	F	Severe
VB	INDEPENDENCE BLVD	I-264	VA BEACH BLVD	0.67	81,851	2003	88,000	89,000	8	8	8	8	D	F	D	F	Severe
VB	INDEPENDENCE BLVD	VA BEACH BLVD	JEANNE ST	0.28	53,472	2003	58,000	58,000	8	8	8	8	E	E	E	E	Severe
VB	INDEPENDENCE BLVD	JEANNE ST	PEMBROKE BLVD	1.07	53,472	2003	58,000	65,000	6	6	6	6	B	C	B	C	Severe
VB	INDEPENDENCE BLVD	PEMBROKE BLVD	HAYGOOD RD	0.90	52,029	2003	55,000	58,000	4	6	6	6	C	D	C	D	Severe
VB	INDEPENDENCE BLVD	HAYGOOD RD	NORTHAMPTON BLVD	1.77	43,743	2003	45,000	43,000	4	4	4	4	C	F	C	F	Severe
VB	INDEPENDENCE BLVD	NORTHAMPTON BLVD	SHORE DR	0.58	24,898	2003	27,000	34,000	4	4	4	4	B	B	B	B	Moderate
VB	INDIAN LAKES BLVD	FERRELL PKWY	INDIAN RIVER RD	0.45	12,583	2003	15,000	15,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	INDIAN RIVER RD	CHESAPEAKE CL	MILITARY HWY	0.52	35,252	2003	36,000	37,000	6	6	6	6	C	D	C	D	Moderate
VB	INDIAN RIVER RD	MILITARY HWY	PROVIDENCE RD	0.57	32,869	2003	34,000	37,000	6	6	6	6	C	C	C	D	Moderate
VB	INDIAN RIVER RD	PROVIDENCE RD	I-64	0.66	39,142	2003	39,000	42,000	6	6	6	6	C	C	C	C	Moderate
VB	INDIAN RIVER RD	I-64	CENTERVILLE TNPK	0.57	78,122	2003	79,000	99,000	8	8	8	8	D	F	D	F	Severe
VB	INDIAN RIVER RD	CENTERVILLE TNPK	KEMPSVILLE RD	0.72	67,533	2003	70,000	68,000	6	6	6	**8**	E	F	F	F	Severe
VB	INDIAN RIVER RD	KEMPSVILLE RD	FERRELL PKWY	0.24	64,453	2003	67,000	60,000	6	6	6	**8**	D	D	E	F	Moderate
VB	INDIAN RIVER RD	FERRELL PKWY	LYNNHAVEN PKWY	0.91	17,396	2003	19,000	18,000	4	4	4	4	A	A	A	A	Low to Moderate
VB	INDIAN RIVER RD	LYNNHAVEN PKWY	INDEPENDENCE BLVD	1.36	16,315	2003	18,000	23,000	2	2	2	**4**	D	D	D	E	Low to Moderate
VB	INDIAN RIVER RD	INDEPENDENCE BLVD	ELBOW RD	0.83	11,236	2003	12,000	21,000	2	2	2	**4**	C	C	C	C	Low to Moderate
VB	INDIAN RIVER RD	ELBOW RD	S.E. PARKWAY	1.12	5,465	2003	7,000	40,000	2	2	2	**4**	B	B	B	B	Severe
VB	INDIAN RIVER RD	S.E. PARKWAY	NORTH LANDING RD	1.70	5,465	2003	7,000	19,000	2	2	2	**4**	B	B	B	B	Low to Moderate
VB	INDIAN RIVER RD	NORTH LANDING RD	WEST NECK RD	2.84	7,348	2003	9,000	11,000	2	2	2	2	B	B	C	C	Low to Moderate
VB	INDIAN RIVER RD	WEST NECK RD	PRINCESS ANNE RD	1.97	7,348	2003	9,000	7,000	2	2	2	2	B	B	C	C	Low to Moderate
VB	INTERNATIONAL PKWY	LYNNHAVEN PKWY	LONDON BRIDGE RD	1.02	14,301	2003	17,000	14,000	4	4	4	4	C	C	C	D	Low to Moderate
VB	KEMPSVILLE RD	CHESAPEAKE CL	CENTERVILLE TNPK	1.01	29,819	2003	43,000	34,000	2	6	6	6	B	B	B	B	Low to Moderate
VB	KEMPSVILLE RD	CENTERVILLE TNPK	INDIAN RIVER RD	1.54	34,230	2003	45,000	32,000	4	4	4	4	C	C	E	F	Severe
VB	KEMPSVILLE RD	INDIAN RIVER RD	PROVIDENCE RD	1.29	30,362	2003	32,000	31,000	4	4	4	4	C	C	C	C	Moderate
VB	KEMPSVILLE RD	PROVIDENCE RD	PRINCESS ANNE RD	0.98	33,520	2003	35,000	35,000	4	4	4	4	C	C	C	C	Low to Moderate
VB	LASKIN RD	VA BEACH BLVD	FIRST COLONIAL RD	1.48	30,231	2003	32,000	32,000	4	4	4	4	C	D	D	D	Moderate
VB	LASKIN RD	FIRST COLONIAL RD	WINWOOD DR	0.51	30,511	2002	33,000	33,000	4	4	4	**6**	C	C	C	C	Low to Moderate
VB	LASKIN RD	WINWOOD DR	BIRDNECK RD	0.98	28,776	2003	30,000	37,000	4	4	4	**6**	C	C	C	C	Low to Moderate
VB	LASKIN RD	BIRDNECK RD	PACIFIC AVE	0.97	29,604	2003	31,000	23,000	4	4	**6**	6	D	D	C	C	Low to Moderate
VB	LASKIN RD/31ST ST	PACIFIC AVE	ATLANTIC AVE	0.06	7,753	2003	10,000	8,000	4	4	**6**	6	C	C	C	C	Low to Moderate
VB	LONDON BRIDGE RD	GENERAL BOOTH BLVD	DAM NECK RD	2.22	23,102	2003	26,000	21,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	LONDON BRIDGE RD (EXTENDED)	DAM NECK RD	SHIPPS CORNER RD	0.25	18,813	2003	23,000	15,000	4	4	4	4	D	D	D	E	Low to Moderate
VB	LONDON BRIDGE RD	SHIPPS CORNER RD	INTERNATIONAL PKWY	1.34	27,157	2003	32,000	33,000	2	4	4	4	B	B	C	C	Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
VB	LONDON BRIDGE RD	INTERNATIONAL PKWY	POTTERS RD/GREAT NECK RD	2.08	16,399	2003	22,000	19,000	2	2	**4**	4	C	D	A	B	Low to Moderate
VB	LYNNHAVEN PKWY	CHESAPEAKE CL	CENTERVILLE TNPK	0.55	DNE		14,000	23,000	0	0	**4**	4	-	-	A	A	Low to Moderate
VB	LYNNHAVEN PKWY	CENTERVILLE TNPK	INDIAN RIVER RD	2.07	DNE			22,000	0	0	0	**4**	-	-	-	-	Low to Moderate
VB	LYNNHAVEN PKWY	INDIAN RIVER RD	SALEM RD	2.01	24,436	2003	35,000	22,000	4	4	4	4	B	C	C	C	Low to Moderate
VB	LYNNHAVEN PKWY	SALEM RD	PRINCESS ANNE RD	0.48	23,857	2003	35,000	30,000	4	4	4	4	B	C	C	C	Moderate
VB	LYNNHAVEN PKWY	PRINCESS ANNE RD	INDEPENDENCE BLVD	0.67	27,826	2003	33,000	31,000	4	4	4	4	B	B	B	C	Low to Moderate
VB	LYNNHAVEN PKWY	INDEPENDENCE BLVD	ROSEMONT RD	0.56	39,282	2003	42,000	39,000	4	4	4	4	C	C	C	C	Low to Moderate
VB	LYNNHAVEN PKWY	ROSEMONT RD	HOLLAND RD	0.92	31,957	2003	34,000	34,000	4	4	4	4	B	B	B	C	Low to Moderate
VB	LYNNHAVEN PKWY	HOLLAND RD	S LYNNHAVEN RD	1.06	37,177	2003	40,000	47,000	4	4	**6**	6	D	C	C	C	Severe
VB	LYNNHAVEN PKWY	S LYNNHAVEN RD	INTERNATIONAL PKWY	0.61	46,521	2003	50,000	30,000	6	6	6	6	E	D	E	D	Low to Moderate
VB	LYNNHAVEN PKWY	INTERNATIONAL PKWY	POTTERS RD	1.17	53,061	2003	55,000	47,000	6	6	6	6	D	D	D	D	Moderate
VB	LYNNHAVEN PKWY	POTTERS RD	I-264	0.20	77,148	2003	80,000	47,000	6	6	6	6	E	F	E	F	Severe
VB	LYNNHAVEN PKWY	I-264	VA BEACH BLVD	0.42	32,719	2003	33,000	31,000	4	4	4	4	D	D	D	D	Moderate
VB	MILITARY HWY	CHESAPEAKE CL	PROVIDENCE RD	0.16	36,344	2002	37,000	40,000	6	6	6	6	D	F	D	F	Severe
VB	MILITARY HWY	PROVIDENCE RD	INDIAN RIVER RD	0.50	34,862	2003	35,000	32,000	6	6	6	6	D	D	D	D	Moderate
VB	MILITARY HWY	INDIAN RIVER RD	NORFOLK CL	0.98	51,099	2003	54,000	46,000	8	8	8	8	C	C	C	C	Low to Moderate
VB	NEWTOWN RD	NORFOLK CL	BAKER RD	0.24	38,699	2003	40,000	39,000	4	4	4	4	D	D	D	D	Moderate
VB	NEWTOWN RD	BAKER RD	DIAMOND SPRINGS RD	0.48	27,035	2003	30,000	39,000	4	4	4	4	C	C	D	D	Severe
VB	NEWTOWN RD	DIAMOND SPRINGS RD	HAYGOOD RD	0.90	7,268	2003	8,000	10,000	2	2	2	2	B	B	B	B	Moderate
VB	NIMMO PKWY	NORTH LANDING RD	WEST NECK RD	2.22	DNE			13,000	0	0	0	**4**	-	-	-	-	Low to Moderate
VB	NIMMO PKWY	WEST NECK RD	PRINCESS ANNE RD	0.85	8,000	2003	10,000	13,000	0	4	4	4	B	B	B	B	Low to Moderate
VB	NIMMO PKWY	PRINCESS ANNE RD	HOLLAND RD	0.57	DNE		18,000	25,000	0	0	**4**	4	-	-	B	B	Moderate
VB	NIMMO PKWY	HOLLAND RD	GENERAL BOOTH BLVD	2.02	DNE			20,000	0	0	0	**4**	-	-	-	-	Low to Moderate
VB	NIMMO PKWY	GENERAL BOOTH BLVD	UPTON DR	0.69	10,176	2003	13,000	15,000	0	4	4	4	B	B	B	B	Low to Moderate
VB	NIMMO PKWY	UPTON DR	SANDBRIDGE RD	2.65	DNE	2003		9,000	0	0	0	**2**	-	-	-	-	Low to Moderate
VB	NORFOLK AVE	BIRDNECK RD	PACIFIC AVE	1.40	10,228	2003	11,000	8,000	2	2	2	2	C	D	C	D	Low to Moderate
VB	NORFOLK AVE	PACIFIC AVE	ATLANTIC AVE	0.06	3,909	2003	5,000	6,000	4	4	4	4	C	C	C	C	Low to Moderate
VB	NORTHAMPTON BLVD	WESLEYAN DR/NORFOLK CL	DIAMOND SPRINGS RD	0.98	66,186	2003	71,000	84,000	8	8	8	8	C	C	D	C	Severe
VB	NORTHAMPTON BLVD	DIAMOND SPRINGS RD	INDEPENDENCE BLVD	2.13	39,750	2003	44,000	59,000	6	6	6	6	B	B	B	B	Low to Moderate
VB	NORTHAMPTON BLVD	INDEPENDENCE BLVD	SHORE DR	1.01	28,895	2003	31,000	33,000	6	6	6	6	A	A	A	A	Low to Moderate
VB	NORTH LANDING RD	CHESAPEAKE CL	INDIAN RIVER RD	1.12	9,513	2003	11,000	12,000	2	2	2	2	C	C	C	C	Moderate
VB	NORTH LANDING RD	INDIAN RIVER RD	SALEM RD	0.36	7,639	2003	14,000	19,000	2	2	2	2	B	C	C	D	Severe
VB	NORTH LANDING RD	SALEM RD	WEST NECK RD	2.08	7,639	2003	14,000	14,000	2	2	2	2	C	C	D	D	Moderate
VB	NORTH LANDING RD	WEST NECK RD	PRINCESS ANNE RD	0.57	12,349	2003	9,000	10,000	2	2	2	2	C	D	C	C	Low to Moderate
VB	OCEANA BLVD	GENERAL BOOTH BLVD	S.E. PARKWAY	0.63	25,560	2002	28,000	36,000	4	4	4	4	C	C	C	C	Severe
VB	OCEANA BLVD	S.E. PARKWAY	TOMCAT BLVD (NAS MAIN ENT)	0.39	25,560	2002	28,000	36,000	4	4	4	4	C	C	C	C	Severe
VB	OCEANA BLVD/FIRST COLONIAL RD	TOMCAT BLVD (NAS MAIN ENT)	VA BEACH BLVD	3.11	32,305	2003	34,000	20,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	OCEANA BLVD	RELOC OCEANA BLVD	SOUTHERN BLVD	0.19	OUT				2	0	0	0	-	-	-	-	NA
VB	OCEANA BLVD	SOUTHERN BLVD	VA BEACH BLVD	0.30	OUT				2	0	0	0	-	-	-	-	NA
VB	PACIFIC AVE	ATLANTIC AVE	LASKIN RD	0.83	23,423	2003	25,000	15,000	4	4	4	4	B	B	B	B	Low to Moderate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
VB	PACIFIC AVE	LASKIN RD	22ND ST	0.65	23,019	2003	24,000	20,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	PACIFIC AVE	22ND ST	21ST ST	0.07	23,019	2003	24,000	19,000	4	4	4	4	D	D	D	D	Moderate
VB	PACIFIC AVE	21ST ST	VA BEACH BLVD	0.27	20,996	2003	22,000	20,000	4	4	4	4	D	D	D	D	Moderate
VB	PACIFIC AVE	VA BEACH BLVD	5TH ST	0.82	20,981	2003	22,000	14,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	PACIFIC AVE	5TH ST	HARBOUR POINT	0.28	24,532	2003	26,000	16,000	4	4	4	4	B	C	C	C	Low to Moderate
VB	PEMBROKE BLVD	WITCHDUCK RD	INDEPENDENCE BLVD	0.40	11,602	2003	13,000	14,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	PLAZA TRAIL	PRINCESS ANNE RD	INDEPENDENCE BLVD	0.76	10,578	2003	12,000	12,000	2	2	2	2	A	B	B	B	Moderate
VB	PLAZA TRAIL	INDEPENDENCE BLVD	HOLLAND RD	0.49	13,868	2003	15,000	18,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	PLAZA TRAIL	HOLLAND RD	MARINA LAKES RD	0.24	10,728	2003	12,000	14,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	PLAZA TRAIL	MARINA LAKES RD	ROSEMONT RD	1.41	10,728	2003	12,000	11,000	2	2	2	2	C	D	C	D	Moderate
VB	PLAZA TRAIL	ROSEMONT RD	I-264	0.94	12,146	2003	14,000	12,000	2	2	2	2	D	E	D	E	Severe
VB	PLAZA TRAIL	I-264	VA BEACH BLVD	0.17	12,146	2003	14,000	9,000	4	4	4	4	D	D	D	D	Low to Moderate
VB	PRINCESS ANNE RD	NEWTOWN RD/NORFOLK CL	KEMPSVILLE RD	1.90	30,012	2003	31,000	27,000	4	4	4	4	C	D	C	E	Moderate
VB	PRINCESS ANNE RD	KEMPSVILLE RD	BAXTER RD	0.58	28,048	2003	37,000	32,000	4	4	4	4	B	B	D	F	Moderate
VB	PRINCESS ANNE RD	BAXTER RD	PROVIDENCE RD	1.65	28,383	2003	29,000	26,000	4	4	4	4	C	C	C	C	Low to Moderate
VB	PRINCESS ANNE RD	PROVIDENCE RD	FERRELL PKWY	0.76	35,500	2003	37,000	41,000	4	4	4	4	B	C	B	D	Severe
VB	PRINCESS ANNE RD	FERRELL PKWY	LYNNHAVEN PKWY	0.48	55,115	2003	60,000	56,000	8	8	8	8	C	C	C	C	Low to Moderate
VB	PRINCESS ANNE RD	LYNNHAVEN PKWY	INDEPENDENCE BLVD	0.44	55,115	2003	60,000	49,000	8	8	8	8	C	C	C	C	Low to Moderate
VB	PRINCESS ANNE RD	INDEPENDENCE BLVD	DAM NECK RD	1.48	43,578	2001	53,000	52,000	8	8	8	8	C	C	C	C	Low to Moderate
VB	PRINCESS ANNE RD	DAM NECK RD	S.E. PARKWAY	1.09	23,737	2003	27,000	29,000	2	2	**4**	4	E	E	B	B	Moderate
VB	PRINCESS ANNE RD	S.E. PARKWAY	NIMMO PKWY	1.24	23,737	2003	27,000	26,000	2	2	**4**	4	E	E	B	B	Moderate
VB	PRINCESS ANNE RD	NIMMO PKWY	NORTH LANDING RD	0.55	15,500	2003	11,000	2,000	2	2	2	2	F	E	C	C	Low to Moderate
VB	PRINCESS ANNE RD	NORTH LANDING RD	HOLLAND RD	0.27	24,907	2002	16,000	8,000	2	2	2	2	F	F	D	D	Low to Moderate
VB	PRINCESS ANNE RD	HOLLAND RD	CROSSROAD RD	1.76	25,012	2003	29,000	20,000	2	2	2	2	E	E	E	F	Severe
VB	PRINCESS ANNE RD	CROSSROAD RD	GENERAL BOOTH BLVD	0.24	25,012	2003	29,000	8,000	4	4	4	4	C	C	D	D	Low to Moderate
VB	PRINCESS ANNE RD	GENERAL BOOTH BLVD	SANDBRIDGE RD/UPTON DR	0.85	12,635	2003	8,000	14,000	2	2	2	**4**	C	C	C	C	Low to Moderate
VB	PRINCESS ANNE RD	SANDBRIDGE RD/UPTON DR	SEABOARD RD	1.76	10,739	2003	14,000	11,000	2	2	2	2	C	C	C	D	Low to Moderate
VB	PRINCESS ANNE RD	SEABOARD RD	INDIAN RIVER RD	0.38	10,739	2003	14,000	10,000	2	2	2	2	C	D	D	E	Moderate
VB	PRINCESS ANNE RD	INDIAN RIVER RD	PUNGO FERRY RD	7.71	8,088	2003	10,000	10,000	2	2	2	2	C	C	C	C	Low to Moderate
VB	PRINCESS ANNE RD	PUNGO FERRY RD	NORTH CAROLINA STATE LINE	5.74	3,182	2003	4,000	3,000	2	2	2	2	C	C	C	C	Low to Moderate
VB	PROVIDENCE RD	CHESAPEAKE CL	MILITARY HWY	0.08	13,580	2003	14,000	16,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	PROVIDENCE RD	MILITARY HWY	INDIAN RIVER RD	0.72	18,233	2003	19,000	21,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	PROVIDENCE RD	INDIAN RIVER RD	KEMPSVILLE RD	2.28	25,491	2003	27,000	30,000	4	4	4	4	C	D	C	D	Moderate
VB	PROVIDENCE RD	KEMPSVILLE RD	PRINCESS ANNE RD	2.02	15,587	2003	17,000	28,000	2	2	2	**4**	C	D	D	D	Moderate
VB	PUNGO FERRY RD	BLACKWATER RD	PRINCESS ANNE RD	2.73	2,843	2003	3,000	2,000	2	2	2	2	B	B	B	B	Low to Moderate
VB	ROSEMONT RD	DAM NECK RD	FACULTY DRIVE	0.93	10,004	2003	11,000	10,000	2	2	2	2	B	B	B	B	Low to Moderate
VB	ROSEMONT RD	FACULTY DRIVE	LYNNHAVEN PKWY	0.58	17,613	2003	19,000	16,000	2	2	2	2	C	F	C	F	Severe
VB	ROSEMONT RD	LYNNHAVEN PKWY	HOLLAND RD	1.25	23,334	2003	25,000	25,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	ROSEMONT RD	HOLLAND RD	PLAZA TRAIL	1.16	33,928	2003	35,000	44,000	4	4	4	**6**	C	C	D	C	Moderate
VB	ROSEMONT RD	PLAZA TRAIL	I-264	0.61	35,296	2003	36,000	54,000	4	4	4	**6**	E	E	E	E	Severe

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
VB	ROSEMONT RD	I-264	VA BEACH BLVD	0.14	56,000	2003	59,000	78,000	4	4	4	**6**	E	F	F	F	Severe
VB	SALEM RD	NORTH LANDING RD	ELBOW RD	2.60	5,411	2003	7,000	7,000	2	2	2	**4**	C	C	C	C	Low to Moderate
VB	SALEM RD	ELBOW RD	INDEPENDENCE BLVD	0.90	9,624	2003	10,000	17,000	2	2	2	**4**	B	B	C	C	Moderate
VB	SALEM RD	INDEPENDENCE BLVD	LYNNHAVEN PKWY	0.60	9,624	2003	10,000	14,000	4	4	4	4	B	B	B	B	Low to Moderate
VB	SALEM RD	LYNNHAVEN PKWY	PRINCESS ANNE RD	0.73	13,500	2003	14,000	10,000	6	6	6	6	A	A	A	A	Low to Moderate
VB	SANDBRIDGE RD	PRINCESS ANNE RD	LOTUS DR	1.55	10,205	2003	12,000	6,000	2	2	2	**4**	C	C	C	D	Low to Moderate
VB	SANDBRIDGE RD	LOTUS DR	SANDPIPER DR	3.18	6,822	2003	9,000	4,000	2	2	2	2	C	C	C	C	Low to Moderate
VB	SEABOARD RD	PRINCESS ANNE RD (AT PA ELEMENTARY)	PRINCESS ANNE RD (AT PUNGO FIELD)	2.42	2,719	2003	4,000	5,000	2	2	2	2	B	B	B	B	Low to Moderate
VB	SEABOARD RD EXTENDED	NIMMO PKWY	PRINCESS ANNE RD (AT PA ELEMENTARY)	0.59	DNE			8,000	0	0	0	**4**	-	-	-	-	Low to Moderate
VB	SHORE DRIVE	NORFOLK CL	DIAMOND SPRINGS RD	0.21	34,891	2003	37,000	35,000	4	4	4	4	B	C	B	C	Low to Moderate
VB	SHORE DRIVE	DIAMOND SPRINGS RD	INDEPENDENCE BLVD	1.82	28,862	2003	30,000	31,000	4	4	4	4	A	A	A	B	Low to Moderate
VB	SHORE DRIVE	INDEPENDENCE BLVD	NORTHAMPTON BLVD	1.01	20,441	2003	21,000	22,000	4	4	4	4	C	C	C	C	Low to Moderate
VB	SHORE DRIVE	NORTHAMPTON BLVD	N GREAT NECK RD	3.47	41,252	2003	44,000	42,000	4	4	4	4	D	F	F	F	Severe
VB	SHORE DRIVE	N GREAT NECK RD	ATLANTIC AVE	4.61	15,206	2003	17,000	12,000	4	4	4	4	A	A	A	A	Low to Moderate
VB	SOUTHERN BLVD	FIRST COLONIAL RD	OCEANA BLVD	0.47	11,922	2001			2	0	0	0	-	-	-	-	NA
VB	UPTON DR	NIMMO PKWY	PRINCESS ANNE RD	0.72	12,635	2003	15,000	7,000	0	4	4	4	C	C	C	C	Low to Moderate
VB	VA BEACH BLVD	NEWTOWN RD/NORFOLK CL	WITCHDUCK RD	1.26	46,111	2003	50,000	52,000	8	8	8	8	B	C	B	C	Low to Moderate
VB	VA BEACH BLVD	WITCHDUCK RD	INDEPENDENCE BLVD	1.12	36,500	2003	43,000	50,000	8	8	8	8	C	C	C	D	Moderate
VB	VA BEACH BLVD	INDEPENDENCE BLVD	ROSEMONT RD	2.22	49,607	2003	55,000	65,000	8	8	8	8	C	D	D	D	Moderate
VB	VA BEACH BLVD	ROSEMONT RD	S. PLAZA TRAIL/LITTLE NECK RD	0.39	58,071	2003	60,000	60,000	8	8	8	8	C	D	D	D	Moderate
VB	VA BEACH BLVD	S. PLAZA TRAIL/LITTLE NECK RD	LYNNHAVEN PKWY	1.61	41,264	2003	45,000	60,000	8	8	8	8	C	D	C	D	Moderate
VB	VA BEACH BLVD	LYNNHAVEN PKWY	GREAT NECK RD	0.83	60,903	2003	62,000	61,000	8	8	8	8	C	C	C	C	Low to Moderate
VB	VA BEACH BLVD	GREAT NECK RD	LASKIN RD	0.14	27,612	2003	30,000	35,000	8	8	8	8	A	A	A	A	Low to Moderate
VB	VA BEACH BLVD	LASKIN RD	FIRST COLONIAL RD	1.04	28,989	2003	29,000	25,000	4	4	4	4	A	A	A	A	Low to Moderate
VB	VA BEACH BLVD	FIRST COLONIAL RD	OLD OCEANA BLVD	0.45	22,756	2003	23,000	19,000	4	4	4	4	C	C	C	C	Low to Moderate
VB	VA BEACH BLVD	OLD OCEANA BLVD	BIRDNECK RD	0.96	15,026	2003	17,000	20,000	4	4	4	4	A	A	A	A	Low to Moderate
VB	VA BEACH BLVD	BIRDNECK RD	PACIFIC AVE	1.18	14,239	2003	15,000	13,000	4	4	4	4	C	C	C	C	Low to Moderate
VB	VA BEACH BLVD	PACIFIC AVE	ATLANTIC AVE	0.07	14,239	2003	15,000	6,000	4	4	4	4	D	D	D	D	Low to Moderate
VB	WESLEYAN DR	NORFOLK CL	BAKER RD	0.43	20,419	2003	21,000	35,000	2	2	2	**4**	F	F	F	F	Severe
VB	WESLEYAN DR	BAKER RD	DIAMOND SPRINGS RD	0.54	15,362	2003	17,000	26,000	4	4	4	4	B	B	B	B	Moderate
VB	WESLEYAN DR	DIAMOND SPRINGS RD	HAYGOOD DR	1.18	18,340	2003	19,000	21,000	4	4	4	4	A	B	A	B	Low to Moderate
VB	WEST NECK PKWY	DAM NECK RD/ELBOW RD	NIMMO PKWY	2.50	DNE	2003		11,000	0	0	0	**4**	-	-	-	-	Low to Moderate
VB	WEST NECK PKWY	NIMMO PKWY	NORTH LANDING RD	0.30	DNE	2003		13,000	0	0	0	**4**	-	-	-	-	Low to Moderate
VB	WEST NECK PKWY	NORTH LANDING RD	INDIAN RIVER RD	1.25	DNE	2003		21,000	0	0	0	**4**	-	-	-	-	Low to Moderate
VB	WEST NECK RD	NIMMO PKWY	NORTH LANDING RD	0.19	8,000	2003	9,000	1,000	0	4	4	4	D	D	D	D	Low to Moderate
VB	WEST NECK RD	NORTH LANDING RD	INDIAN RIVER RD	2.05	2,619	2003	4,000	1,000	2	2	2	**4**	B	B	B	B	Low to Moderate
VB	WITCHDUCK RD	PRINCESS ANNE RD	I-264	0.78	29,985	2003	32,000	48,000	4	4	4	**6**	C	C	C	C	Severe
VB	WITCHDUCK RD	I-264	VA BEACH BLVD	0.51	45,265	2003	48,000	56,000	4	4	4	**6**	D	E	E	E	Severe
VB	WITCHDUCK RD	VA BEACH BLVD	PEMBROKE BLVD	1.58	19,676	2003	21,000	24,000	4	4	4	4	C	C	C	C	Moderate
WMB	BYPASS RD	RICHMOND RD	YORK CL	0.11	28,684	2001	30,000	34,000	4	4	4	4	D	D	D	D	Moderate

Appendix D: CMS Roadway Segments, Volumes, Lanes and Peak Hour Levels of Service for Existing, 2008, and 2026 – **ARTERIALS AND COLLECTORS**

Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
WMB	BYPASS RD	YORK CL	PAGE ST	0.66	20,073	2001	21,000	22,000	4	4	4	4	B	B	B	B	Low to Moderate
WMB	CAPITOL LANDING RD	BYPASS RD	MERRIMAC TRAIL	0.62	8,391	2001	9,000	11,000	4	4	4	4	A	A	A	A	Low to Moderate
WMB	COLONIAL NATL HIST PKWY	JAMES CITY CL	YORK CL	3.09	5,881	2001	7,000	9,000	3	3	3	3	C	D	C	D	Moderate
WMB	IRONBOUND RD	JAMES CITY CL	LONGHILL CONNECTOR RD	0.18	10,574	2003	12,000	10,000	2	2	2	**4**	B	B	B	B	Low to Moderate
WMB	IRONBOUND RD	LONGHILL CONNECTOR RD	RICHMOND RD	0.66	12,335	2001	14,000	16,000	2	2	2	2	C	C	C	C	Severe
WMB	JAMESTOWN RD	JAMES CITY CL	RTE 199	0.06	15,466	2003	19,000	23,000	4	4	4	4	C	C	C	D	Moderate
WMB	JAMESTOWN RD	RTE 199	JOHN TYLER LA	0.27	10,315	2001	12,000	13,000	3	3	3	3	D	D	D	D	Moderate
WMB	JAMESTOWN RD	JOHN TYLER LA	COLLEGE CREEK	0.58	11,709	2001	12,000	13,000	4	4	4	4	B	B	B	B	Low to Moderate
WMB	JAMESTOWN RD	COLLEGE CREEK	BOUNDARY ST	0.92	11,709	2001	12,000	13,000	2	2	2	2	D	D	D	D	Moderate
WMB	LAFAYETTE ST	RICHMOND RD	HENRY ST	0.95	12,172	2001	13,000	12,000	2	2	2	2	B	B	B	B	Low to Moderate
WMB	LAFAYETTE ST	HENRY ST	CAPITOL LANDING RD	0.85	12,425	2001	13,000	14,000	2	2	2	2	B	B	B	B	Low to Moderate
WMB	LAFAYETTE ST	CAPITOL LANDING RD	PAGE ST	0.21	10,511	2001	11,000	7,000	2	2	2	2	B	B	B	B	Low to Moderate
WMB	MERRIMAC TRAIL	YORK CL (SOUTH)	CAPITOL LANDING RD	0.90	6,329	2001	8,000	10,000	2	2	2	2	B	B	C	C	Low to Moderate
WMB	MERRIMAC TRAIL	CAPITOL LANDING RD	YORK CL (NORTH)	0.37	9,112	2001	10,000	11,000	4	4	4	4	A	A	A	A	Low to Moderate
WMB	MONTICELLO AVE	IRONBOUND RD	RICHMOND RD	1.17	13,944	2001	15,000	22,000	2	2	2	2	D	D	D	D	Severe
WMB	N. HENRY ST	LAFAYETTE ST	RTE 132Y	0.44	8,022	2001	8,000	6,000	2	2	2	2	C	D	C	D	Low to Moderate
WMB	PAGE ST	BYPASS RD	SECOND ST	0.31	20,971	2001	22,000	26,000	4	4	4	4	C	D	C	D	Moderate
WMB	PAGE ST	SECOND ST	YORK ST	0.25	20,750	2001	21,000	22,000	4	4	4	4	C	D	C	D	Moderate
WMB	QUARTERPATH RD	ROUTE 199	YORK ST	1.44	1,473	2001	3,000	6,000	2	2	2	2	B	B	C	C	Low to Moderate
WMB	RICHMOND RD	JAMES CITY CL	IRONBOUND RD	1.34	22,401	2001	23,000	27,000	4	4	4	4	B	B	B	B	Moderate
WMB	RICHMOND RD	IRONBOUND RD	BYPASS RD	0.33	32,730	2001	34,000	37,000	4	4	4	4	C	C	C	C	Severe
WMB	RICHMOND RD	BYPASS RD	MONTICELLO AVE	0.37	20,168	2003	24,000	31,000	2	2	2	**4**	F	F	F	F	Moderate
WMB	RICHMOND RD	MONTICELLO AVE	BROOKS ST	0.38	13,304	2003	14,000	17,000	2	2	2	2	B	B	B	B	Severe
WMB	RICHMOND RD	BROOKS ST	BOUNDARY ST	0.67	13,304	2003	14,000	11,000	2	2	2	2	B	B	B	B	Low to Moderate
WMB	ROUTE 132	ROUTE 132Y	YORK CL	0.16	12,423	2001	13,000	10,000	4	4	4	4	C	D	C	D	Low to Moderate
WMB	ROUTE 132Y	COLONIAL PKWY	ROUTE 132	0.30	7,629	2001	8,000	5,000	4	4	4	4	A	A	A	A	Low to Moderate
WMB	ROUTE 199	JAMES CITY CL (WEST)	JAMESTOWN RD	0.24	29,427	2001	31,000	41,000	4	4	4	4	E	E	E	E	Severe
WMB	ROUTE 199	JAMESTOWN RD	JAMES CITY CL (EAST)	0.16	29,353	2001	33,000	43,000	4	4	4	4	E	E	E	E	Severe
WMB	SECOND ST	PAGE ST	YORK CL	0.41	17,976	2001	19,000	20,000	4	4	4	4	B	B	B	B	Low to Moderate
WMB	YORK ST	PAGE ST	JAMES CITY CL	0.60	17,894	2001	20,000	18,000	2	2	2	2	D	E	D	E	Severe
YC	BALLARD ST	COLONIAL PKWY	COOK RD	0.11	3,000	2003	3,000	7,000	2	2	2	2	C	C	C	C	Low to Moderate
YC	BIG BETHEL RD	HAMPTON CL	HAMPTON HWY (RTE 134)	0.96	11,090	2001	12,000	15,000	2	2	2	2	B	B	B	B	Moderate
YC	BIG BETHEL RD	HAMPTON HWY (RTE 134)	VICTORY BLVD (RTE 171)	1.09	4,804	2001	5,000	9,000	2	2	2	2	B	C	B	C	Low to Moderate
YC	BYPASS RD	WILLIAMSBURG CL	WALLER MILL RD	0.19	28,684	2001	30,000	34,000	4	4	4	4	D	D	D	D	Moderate
YC	BYPASS RD	WALLER MILL RD	ROUTE 132	0.88	28,684	2001	30,000	34,000	4	4	4	4	C	C	C	C	Moderate
YC	BYPASS RD	ROUTE 132	WILLIAMSBURG CL	0.05	20,073	2001	21,000	23,000	4	4	4	4	B	B	B	B	Low to Moderate
YC	COLONIAL NATL HIST PKWY	WILLIAMSBURG CL	MOORE HOUSE RD	11.21	2,812	2001	4,000	4,000	3	3	3	3	C	D	D	D	Moderate
YC	COOK RD	GOOSLEY RD	MOORE HOUSE RD	0.25	6,000	2003	6,000	8,000	2	2	2	2	C	D	C	D	Moderate
YC	DENBIGH BLVD	NEWPORT NEWS CL	ROUTE 17	2.18	15,857	2003	17,000	18,000	2	2	2	2	D	E	D	E	Severe
YC	EAST YORKTOWN RD	VICTORY BLVD	POQUOSON CL	0.29	4,000	2003	5,000	12,000	2	2	2	2	C	C	C	C	Moderate

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
YC	FORT EUSTIS BLVD	NEWPORT NEWS CL	ROUTE 17	2.36	16,606	2001	18,000	22,000	2	2	2	2	E	E	E	E	Severe
YC	GEORGE WASHINGTON HWY	NEWPORT NEWS CL	VICTORY BLVD (RTE 171)	1.20	32,720	2001	35,000	43,000	4	4	4	4	D	D	D	D	Severe
YC	GEORGE WASHINGTON HWY	VICTORY BLVD (RTE 171)	HAMPTON HWY (RTE 134)	0.64	38,000	2003	41,000	37,000	4	4	4	4	E	D	F	F	Moderate
YC	GEORGE WASHINGTON HWY	HAMPTON HWY (RTE 134)	DENBIGH BLVD (RTE 173)	3.45	55,511	2003	57,000	70,000	4	4	4	**6**	F	F	F	F	Severe
YC	GEORGE WASHINGTON HWY	DENBIGH BLVD (RTE 173)	FORT EUSTIS BLVD (RTE 105)	1.38	35,184	2001	38,000	41,000	4	4	4	4	C	C	C	C	Severe
YC	GEORGE WASHINGTON HWY	FORT EUSTIS BLVD (RTE 105)	GOOSLEY RD (RTE 238)	2.97	39,068	2001	42,000	41,000	4	4	4	4	B	B	B	C	Severe
YC	GEORGE WASHINGTON HWY	GOOSLEY RD (RTE 238)	GLOUCESTER CL (COLEMAN BRIDGE)	1.06	38,019	2001	42,000	43,000	4	4	4	4	F	F	F	F	Severe
YC	GOODWIN NECK RD	ROUTE 17	WOLF TRAP RD	1.05	10,095	2001	10,000	11,000	2	2	2	2	B	B	B	B	Severe
YC	GOOSLEY RD	OLD WILLIAMSBURG RD	CRAWFORD RD	0.89	6,359	2001	7,000	7,000	2	2	2	2	C	C	C	D	Moderate
YC	GOOSLEY RD	CRAWFORD RD	ROUTE 17	0.30	6,359	2001	7,000	10,000	2	2	2	2	C	E	C	E	Severe
YC	GOOSLEY RD	ROUTE 17	COOK RD	0.52	3,000	2003	3,000	2,000	2	2	2	2	C	C	C	C	Low to Moderate
YC	HAMPTON HWY	ROUTE 17	VICTORY BLVD (RTE 171)	0.72	26,202	2001	28,000	33,000	4	4	4	4	C	D	C	D	Moderate
YC	HAMPTON HWY	VICTORY BLVD (RTE 171)	BIG BETHEL RD (RTE 600)	1.54	25,086	2001	27,000	31,000	4	4	4	4	C	C	C	C	Moderate
YC	HAMPTON HWY	BIG BETHEL RD (RTE 600)	NCL HAMPTON	1.77	25,831	2001	28,000	29,000	4	4	4	4	C	C	C	C	Moderate
YC	MERRIMAC TRAIL	JAMES CITY CL	GROVE INTERCHANGE	0.66	11,382	2001	14,000	7,000	4	4	4	4	A	A	A	B	Low to Moderate
YC	MERRIMAC TRAIL	GROVE INTERCHANGE	ROUTE 199	1.75	16,453	2001	18,000	16,000	4	4	4	4	B	A	B	B	Low to Moderate
YC	MERRIMAC TRAIL	ROUTE 199	JAMES CITY CL (NORTH OF 199)	0.09	19,332	2001	22,000	36,000	4	4	4	4	D	D	D	D	Severe
YC	MERRIMAC TRAIL	JAMES CITY CL (PENNIMAN RD)	SECOND ST	0.50	23,000	2003	24,000	25,000	4	4	4	4	D	D	D	D	Moderate
YC	MERRIMAC TRAIL	SECOND ST	SCL WILLIAMSBURG	0.26	7,172	2001	8,000	10,000	2	2	2	2	C	C	C	C	Low to Moderate
YC	MERRIMAC TRAIL	NCL WILLIAMSBURG	ROUTE 132	0.22	8,692	2001	10,000	11,000	4	4	4	4	C	C	C	C	Low to Moderate
YC	MERRIMAC TRAIL	ROUTE 132	I-64	0.60	18,433	2001	19,000	20,000	4	4	4	4	C	D	C	D	Moderate
YC	MOORETOWN RD	ROUTE 199	OLD MOORETOWN RD	0.95	4,000	2003	5,000	10,000	4	4	4	4	A	A	A	A	Low to Moderate
YC	MOORETOWN RD	OLD MOORETOWN RD	WALLER MILL RD	3.50	4,163	2001	5,000	7,000	2	2	2	2	B	B	B	B	Low to Moderate
YC	NEWMAN RD	I-64	FENTON MILL RD	0.46	2,955	2001	5,000	14,000	2	2	2	2	A	B	B	B	Moderate
YC	OLD WILLIAMSBURG RD	NECL NEWPORT NEWS	GOOSLEY RD	2.20	9,957	2003	12,000	16,000	2	2	2	2	C	D	D	D	Moderate
YC	PENNIMAN RD (RTE 641)	ROUTE 199	COLONIAL PKWY	1.19	4,444	2003	6,000	6,000	2	2	2	2	C	C	D	D	Moderate
YC	POCAHONTAS TRAIL	JCC LINE @ RTE 199	KINGSMILL RD	0.66	25,655	2001	28,000	24,000	4	4	4	4	D	D	D	D	Moderate
YC	POCAHONTAS TRAIL	KINGSMILL RD	GROVE INTERCHANGE	1.16	15,054	2001	16,000	14,000	2	2	2	2	C	D	D	D	Moderate
YC	POCAHONTAS TRAIL	GROVE INTERCHANGE	JAMES CITY CL	0.71	12,492	2001	13,000	14,000	2	2	2	2	C	C	C	C	Moderate
YC	RICHNECK RD	NEWPORT NEWS CL	FORT EUSTIS BLVD	0.90	1,761	2001	3,000	3,000	2	2	2	2	B	B	B	C	Low to Moderate
YC	ROUTE 132	WILLIAMSBURG CL	ROUTE 60	0.10	12,423	2001	13,000	10,000	4	4	4	4	C	D	C	D	Low to Moderate
YC	ROUTE 132	ROUTE 60	ROUTE 143	1.16	11,584	2001	12,000	10,000	2	2	2	2	D	D	D	D	Moderate
YC	ROUTE 199	RTE 60/RTE 143/JCC LINE	I-64	1.00	25,617	2003	26,000	49,000	4	4	4	4	A	A	A	A	Low to Moderate
YC	ROUTE 199	I-64	RTE 641 (PENNIMAN RD)	0.90	14,916	2001	18,000	21,000	4	4	4	4	A	A	A	A	Low to Moderate
YC	ROUTE 1050 (FT EUSTIS BLVD EXT)	ROUTE 17	OLD YORK - HAMPTON HWY	0.38	DNE		5,000	12,000	0	0	**4**	4	-	-	A	A	Low to Moderate
YC	SECOND ST	ECL WMSBG	MERRIMAC TRAIL	0.17	17,978	2001	19,000	20,000	4	4	4	4	B	B	B	B	Low to Moderate
YC	VICTORY BLVD	NEWPORT N CL	ROUTE 17	0.85	45,257	2001	49,000	62,000	6	6	6	6	D	D	E	E	Severe
YC	VICTORY BLVD	ROUTE 17	HAMPTON HWY (RTE 134)	0.35	36,300	2000	39,000	33,000	4	4	4	4	D	D	D	D	Moderate
YC	VICTORY BLVD	HAMPTON HWY (RTE 134)	BIG BETHEL RD (RTE 600)	1.02	18,575	2001	21,000	18,000	2	2	2	2	C	D	D	F	Moderate
YC	VICTORY BLVD	BIG BETHEL RD (RTE 600)	CARYS CHAPEL RD (RTE 782)	1.25	18,575	2001	21,000	26,000	2	2	2	2	C	D	D	F	Severe

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Juris Name	Facility Name	Segment From	Segment To	Length (Mi)	'01-'03 Existing ADT	Existing ADT Year	2008 ADT	2026 ADT	2000 Lanes	2003 Existing Lanes	2008 Lanes	2026 Lanes	2003 Existing LOS		2008 LOS		Adjusted* 2026 Congestion Level (PM Peak Hour)
													AM	PM	AM	PM	
YC	VICTORY BLVD	CARYS CHAPEL RD (RTE 782)	POQUOSON CL	0.23	12,741	2001	14,000	18,000	2	2	2	2	B	B	B	B	Severe
YC	WALLER MILL RD	ROUTE 60	MOORETOWN RD	0.18	5,801	2001	7,000	15,000	4	4	4	4	D	D	D	D	Moderate

Legend:

- **Roadway capacity improvement made since last CMS update (2000)**
- **Programmed roadway capacity improvement by 2008 (TIP FY 05-08)**
- **Planned roadway capacity improvment by 2026 (2026 RTP)**
- **Level of Service D (Moderate Congestion)**
- **Level of Service E (Severe Congestion)**
- **Level of Service F (Severe Congestion)**

*Note: Three levels of analysis are generally used in computing levels of service: (1) Generalized Planning (2) Conceptual Planning, and (3) Operational Analysis. Generalized planning uses generalized tables with many default values to calculate "in the ballpark" levels of service. The CMS study uses a conceptual planning level analysis for the 2003 Existing and 2008 travel conditions and is best suited for obtaining a solid determination of the LOS of a facility. Conceptual planning is more detailed than generalized planning, however it does not involve comprehensive operational analysis. An operational analysis may include factors such as intersection signal timing or turning movements into and out of driveways along a facility. The 2026 congestion levels (PM peak hour only) were determined as a part of the 2026 Regional Transportation Plan, which utilized a generalized planning level. Some 2026 congestion levels, however, were adjusted slightly according to the detailed data that became available from the conceptual planning level analysis for the 2003 Existing and 2008 travel conditions.

Congestion Level	Level of Service
Low to Moderate	LOS A, B, or C
Moderate	LOS D
Severe	LOS E or F

Traffic Data Sources: Virginia Department of Transportation and Hampton Roads Jurisdictions